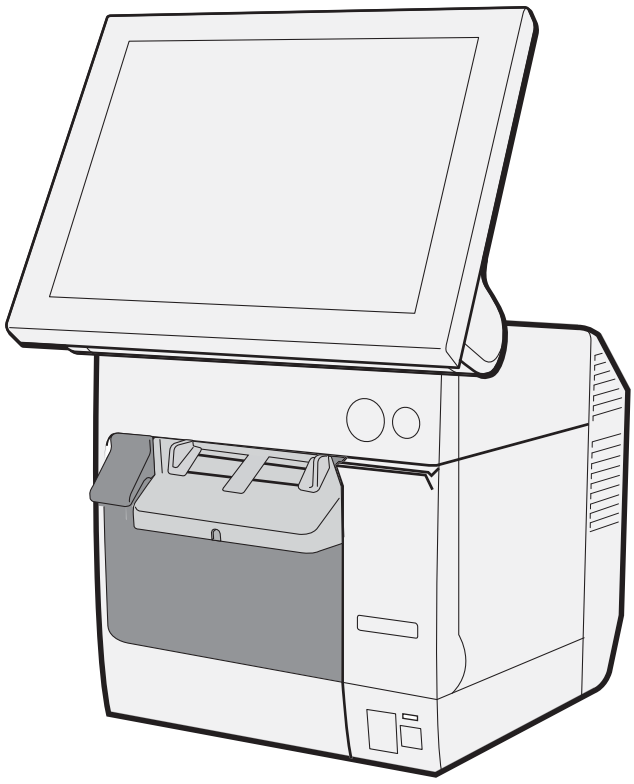
EPSON
EXCEED YOUR VISION

TM-C3400-LT

Technical Reference Guide



Overview and Basic Operations

Describes the features and basic operations of the product.

Setup

Describes setup and installation of the product and peripherals.

Preinstalled OS Information

Describes preinstall information and recovery method.

Utility

Describes the product's utilities.

Setting the Printer Driver

Describes how to set the printer driver.

Application Development Information

Describes how to control the printer and necessary information when you develop applications.

Maintenance

Describes how to handle the product.

Appendix

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Rev.B

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Restriction of Use

When this product is used for applications requiring high reliability/safety such as transportation devices related to aviation, rail, marine, automotive etc.; disaster prevention devices; various safety devices etc.; or functional/precision devices etc., you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability.

Because this product was not intended for use in applications requiring extremely high reliability/safety such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care etc, please make your own judgment on this product's suitability after a full evaluation.

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For Safety

Key to Symbols

The symbols in this manual are identified by their level of importance, as defined below. Read the following carefully before handling the product.

WARNING	You must follow warnings carefully to avoid serious bodily injury.
CAUTION	Provides information that must be observed to prevent damage to the equipment or loss of data. • Possibility of sustaining physical injuries. • Possibility of causing physical damage. • Possibility of causing information loss.
CAUTION	Provides information that must be observed to avoid damage to your equipment or a malfunction.
NOTE	Provides important information and useful tips.

Cautions for Regarding Installation

WARNING	**Do not block the air vents on this product.** Blocking the air vents may result in internal heat build-up and fire. Do not install in the following types of places. ∗ Tight spaces where ventilation is poor, such as in a closet or on a bookshelf ∗ On a rug or bed
CAUTION	• **Do not install or store in an unstable place (such as on a wobbly or tilted surface), in reach of children, or in a place subject to vibration from other machines.** There is a risk that it could drop or fall over, resulting in injury. • **Do not install in places where there is excessive moisture or dust, risk of getting wet, direct sunlight, severe changes in temperature and humidity, or close to heating and cooling devices.** There is a risk of electric shock, fire, and malfunction or failure of this product. • **When lifting the product, maintain a comfortable posture.** Lifting the product in the improper posture may result in injury. • **When lifting the product, be sure to hold the parts specified in the manual.** If you hold other parts of the product and lift the product, the product may fall or your fingers may get caught when lowering the product, resulting in injury.

Cautions for the Power Source

WARNING

- **Use only the type of power source indicated on the product's label.**
  Use of the wrong type of power source may result in electric shock or fire.
- **Be careful when handling the power plug.**
  Mishandling may result in fire.
  * Do not leave plugged into a power source with foreign matter such as dust on it
  * Firmly insert the prongs of the power plug all the way
- **For safety reasons, be sure to ground the power cord.**
  The power cord supplied with the product has a 3-pin cable with a power system grounding (PE) terminal, so connect it to an outlet that is grounded securely.
- **Do not use a damaged power cord.**
  This may result in electric shock or fire.
  If the power cord is damaged, consult your dealer for repairs.
  Observe the following when handling the power cord.
  * Do not modify the power cord
  * Do not place heavy objects on the power cord
  * Do not bend, twist or pull the power cord by force
  * Do not wire the cord near heating appliances
- **Do not connect or disconnect the power plug with wet hands.**
  This may result in electric shock.
- **Do not plug the power cord into an outlet with many other cords connected to it.**
  This may result in heat build-up and fire.
- **Do not affix the power cord to a connector or power outlet using an adhesive, etc.**
  There may be a risk of fire.
- **Regularly disconnect the power plug from the outlet and clean the base of the prongs and between the prongs.**
  If you leave the power plug connected to an outlet for a long time, the base of the power plug prongs may become dusty, which may result in short circuit and fire.
- **When you disconnect the power plug from the outlet, be sure to turn off the power and hold the plug as you pull.**
  If you stretch the power cord, it may become damaged, which could result in electric shock or fire.

CAUTION

- **Be sure to plug the power cord directly into a power outlet.**
- **Be sure to place the product near a power outlet so that the power plug can be disconnected immediately in the case of a malfunction.**
- **For safety, be sure to disconnect the power plug from the outlet when you will not be using the product for a long time.**

Cautions for Using

WARNING

- **Do not install in a place where volatile substances, such as alcohol or paint thinner, are present or in a place where there is fire.**
  This may result in electric shock or fire.
- **Do not continue to use under abnormal conditions such as smoke, unusual odors or sounds.**
  This may result in electric shock or fire.
  Immediately turn off the power, disconnect the power plug from the outlet, and contact your dealer or the Epson Repair Center about repairs. Servicing the product yourself is dangerous, so never attempt it.
- **If a foreign object, water or other liquid enters the product, do not continue to use it.**
  This may result in electric shock or fire.
  Immediately turn off the power, disconnect the power plug from the outlet, and contact your dealer or the Epson Repair Center about repairs.
- **Do not perform any disassembly other than those mentioned in this manual.**
- **Do not attempt to service the product yourself**
  This may result in injury, electric shock, fire or malfunction.
- **Do not use flammable gas sprays inside or around this product.**
  There is a risk that gas will build up and a spark may cause a fire.
- **Do not insert or drop metal or flammable objects into the air vents or other openings.**
  This may result in electric shock or fire.
- **In the event of damage to the liquid crystal display, be careful in handling the liquid crystal material inside the display.**
  In the event of any of the following conditions, perform first aid measures.
  - If the material adheres to your skin, wipe off the material, rinse your skin with water, and thoroughly wash your skin with soap.
  - If the material gets into your eyes, wash out the material for at least 15 minutes with clean water and then get a diagnosis from a physician.
  - If the material is swallowed, thoroughly wash your mouth with water, drink a large amount of water and spit out the material, and then consult a physician.

CAUTION

- **Do not step or place heavy objects on top of the product.**
  Be especially careful in households with small children. There is a risk that it could fall over or break, resulting in injury.
- **When attaching various cables and options, be sure to attach them in the correct direction and using the correct procedure.**
  There may be a risk of fire or injury. Follow the instructions in the manual to correctly attach them.
- **For safety reasons, if you move this product, first check that the power is off, the power plug is disconnected from the outlet, and all of the wires are disconnected.**
- **When storing or transporting this product, do not tilt it, stand it on end, or turn it upside down.**
  There may be a risk of ink leakage.

CAUTION

- **When the battery inside the product needs to be replaced, contact your dealer or Epson's repair services.**
  There may be a risk of explosion if it is replaced with an incorrect battery type.
- **Do not touch the fixed blade of the autocutter with bare hands.**
  Doing so may cause injury.
- **When replacing the ink cartridges, be careful that the ink does not contact your eyes or skin.**
  If ink gets into your eyes, immediately flush them with water, and if it gets onto your skin, immediately wash the area with soap and water. Otherwise you may have bloodshot eyes or a mild inflammation. In the rare event that there is a problem, immediately consult a physician.
- **Do not disassemble the ink cartridges to replenish or refill the ink.**
- **Do not shake the ink cartridge too hard.**
  The ink cartridge may leak if you shake it too much.
- **Store ink cartridges out of the reach of children. Also, do not ingest the ink.**
- **Do not brush your hands against the edges of printing paper.**
  Since the edges of paper are thin and sharp, there may be a risk of injury.

About this Manual

Aim of the Manual

This manual was created to provide information on development, design, and installation of POS systems and development and design of printer applications for developers.

Manual Content

The manual is made up of the following sections:

Chapter 1	Overview and Basic Operations
Chapter 2	Setup
Chapter 3	Preinstalled OS Information
Chapter 4	Utility
Chapter 5	Setting the Printer Driver
Chapter 6	Application Development Information
Chapter 7	Maintenance
Appendix	Problems and Solutions Product Specifications Supplies

Contents

■ **For Safety** **3**

Key to Symbols 3
Cautions for Regarding Installation 4
Cautions for the Power Source 5
Cautions for Using 6

■ **About this Manual** **8**

Aim of the Manual 8
Manual Content 8

■ **Contents** **9**

Overview and Basic Operations 13

■ **Features** **13**

Accessories 15

■ **Function** **16**

■ **Post-Printing Verification Settings** **19**

When an Unrecoverable Missing Dot Occurs 21

■ **Parts Name and Function** **22**

Front 22
Back 23

■ **Basic Operations** **25**

Power On/Off 25
Turning On/Off the Power of the Printer 26
Touch Panel Operations 27
Printer status 29
Verifying the Ink Level 30
Ink Cartridge Replacement Procedure 30
Replacing the Paper 31
Ejection Angle of Printed Paper 34
Printer Buttons 34

Setup 35

■ **Flow of Setup** **35**

■ **Installing the Printer** **36**

Installation 36

■ **Connecting the Cable** **37**

Connecting LAN cable 38
Connecting power cord 39
Connecting a Barcode Reader 41

■ **Loading the Paper** **42**
■ **Initial Settings** **46**
■ **Loading the Ink Cartridge** **47**
■ **Attaching/Adjusting the Paper Ejection Tray** **49**

Preinstalled OS Information 51

■ **Preinstallation Information** **51**
HDD version 52
■ **Recovery** **53**
Items to Verify Beforehand 53
Procedure 53

Utility 55

■ **Printer power ON/OFF** **55**
■ **TM-C3400LT Utility** **56**
■ **Printer status** **57**
■ **Printer power and backlight brightness control** **61**
■ **Touch Panel Utility** **62**
Setting 62
Calibration 64

Setting the Printer Driver 65

■ **How to Use the Printer Driver** **65**
How to Display the Printer Driver 65
Registering User Defined Media 66
Favorite Setting 67
Information for User Definition 70
Barcode Printing 71
2D Symbol Font Settings 84
Barcode and 2D Symbol Font Printing on .NET Environment 91
Functions of the Printer Driver 93
■ **Setting the Printer Driver** **99**
Post-Printing Verification Settings 99
Notification Settings 106
Media Loading Settings 108
Media Position Detection 110
Panel Button Settings 111
Sensor Adjustment 113
Setting EPSON Status Monitor 3 115
Setting the Post-Printing Movements 121

Application Development Information 123

■ **Overview** **123**

■ **Printer Driver** **123**

■ **Utilities and Manuals** **124**

Download 125

■ **Printer Driver and Utility** **126**

Function List 126
Setting the Printer 127
Acquiring Printer Status 129

■ **TM-C3400-LT API** **131**

■ **TM-C3400-LT Reference Library** **132**

TMC34LT_PrinterPowerOn 132
TMC34LT_PrinterPowerOff 132
TMC34LT_SetBrightness 133
TMC34LT_SetPrinterBin 134
TMC34LT_GetPrinterBin 136

■ **Sample Program** **137**

■ **Application Specification to Develop** **138**

Character Size to Print 138
Print Barcode / 2D Symbol Data on the Graphic Data 138
When Extremely High Reliability and Safety are Required 138

Maintenance 139

■ **Replacing the Paper** **139**

Replacing Roll Paper with Roll Paper 140
Replacing Fanfold Paper with Fanfold Paper 144
Changing From Roll Paper to Fanfold Paper 148
Changing From Fanfold Paper To Roll Paper 154

■ **Setting the Media Position Detection** **161**

Setting Method 161

■ **Head Cleaning** **163**

Manual Head Cleaning 163
Manual Head Cleaning during printing 164
Nozzle Check 165

■ **Gap Adjustment** **166**

Gap Adjustment Operation Procedure 166

■ **Self-test** **167**

■ **Cleaning the Autocutter** **169**

■ **Exterior Surface Cleaning** **170**

■ **Preparing for Transport** **171**
■ **Managing the Printer Driver / Printer Settings** **172**
Printer Driver Functions 172
Upgrading the Printer Driver 173
Destination for the Printer Driver Setting 174
Printer Setting 175
■ **To Customers who Plan to Keep the Product in Operation 24 Hours a Day** **177**
Setting the Hard Disk Motor to Stop 177
■ **Restrictions** **180**

Appendix **181**

■ **Problems and Solutions** **181**
Power On / Off Problems 181
Screen Control Problems 182
Printout is Not Satisfactory 183
Paper is Not Cut Cleanly 184
Cannot Read Barcode 184
■ **Product Specifications** **185**
Basic Specifications 185
Printing Specifications 186
Reliability 187
Environmental Conditions 189
Paper Specifications 190
Print Area and Cutting Position 203
Paper Ejection Tray 211
Ink Cartridge 211
■ **Supplies** **212**
Media 212
Ink Cartridge 212

Overview and Basic Operations

Features

This product is a 3-color inkjet label printing terminal with Windows-based control functions and a built-in LCD touch panel.

Environmental Durability

- ❏ Guaranteed to a wide range of temperature (0 to 40°C {32 to 104 °F}) to support installation and use in locations with no air conditioning
- ❏ Touch panel operation that tolerates hands with dirt and moisture on them (equivalent to IPX2)
- ❏ Creation of color labels using pigment ink with high light resistance and water resistance
- ❏ Printer's power can be turned off when printer is not being used for printing to reduce standby power consumption (Can also be controlled from an application developed by the customer.)

High Productivity

- ❏ High-speed printing up to 92 mm/s (Printing width 56 mm, 360 x 180 dpi)
- ❏ Support for high-capacity fanfold paper to save time required for paper replacement
- ❏ Roll paper and ink cartridge can be replaced simply by performing operations at front of printer
- ❏ Easy drop-in paper loading
- ❏ High reliability system to prevent missing dots with auto nozzle check system installed.
- ❏ Reprint function allows printing to the page that was not printed after solving paper jam error or an error of paper out.
- ❏ Labels can be cut one by one using autocutter

Easy Operability

- ❏ Screen angle and brightness can be adjusted
- ❏ Small footprint which is smallest in its class in the industry (300 mm (W) x 312 mm (D) x 345 mm (H)) (*excluding the projections, including the rear cover)
- ❏ Multiple printed sheets can be stored in the paper ejection tray. The paper ejection tray cannot store multiple sheets of roll paper.

Software Development

- ❏ Printer uses Windows POS Ready 2009 and has a 250GB HDD.
- ❏ Comes with a printer driver. Also supports printing from commercially available label applications.
- ❏ The printer driver includes barcode and 2D symbol generation functions.
- ❏ Supports printing from a .NET environment.
- ❏ APIs for setting the printer and LCD brightness, etc. are available for controlling the product from an application. In addition, functions for obtaining/notifying the status of the printer are also available.
- ❏ The printer has a re-printing function. It is not necessary to redo a printing sequence after recovering from an error.
- ❏ Sample printing programs using the printer driver (languages: C++, C#, VB6.0, VB.NET)

Printing

- ❏ High-speed printing
  - 92 mm/s (printing width 56 mm, 360 dpi × 180 dpi, bi-directional printing)
  - 47 mm/s (printing width 56 mm, 360 dpi × 360 dpi, bi-directional printing)

> NOTE
>
> The print speed is different depending on the resolution and the printing width.

- ❏ Color printing
  - CMY 3-color printing
  - Print resolution: Plain Media, Plain Media Label 360 dpi × 180 dpi, 360 dpi × 360 dpi
    : Others 360 dpi × 360 dpi, 720 dpi × 360 dpi
    (dpi: dots per 25.4 mm (dots per inch))
  - Each color has 4 gradations
- ❏ Supports printing on various types of paper
  - Roll paper, Fan-fold paper
  - Receipt, Black Mark Receipt, Full-page Label, Die-cut Label, Black Mark Die-cut Label
    (Detects positions of black marks and gaps between labels)
  - Plain Media, Plain Media Label, Fine Media, Fine Media Label, PET Film, Synthetic Media Label
  - Wrist Band
- ❏ System to prevent ink from smearing out of the printable area such as on the backing paper of Die-cut Label.
- ❏ System to prevent missing read or missing color caused by missing dots.

Accessories

Unpacking

- This product (TM-C3400-LT)
- Roll paper (for checking initial movement)
- Ink cartridge (Model number: SJIC15P)
- Paper ejection tray
- Paper feed guide (for fanfold paper: attached on the rear of the fanfold paper cover)
- Power cord
- Recovery disk
- Instruction sheet
- User's Manuals (for main unit)

NOTE

The power cord may not be included with the printer.

Function

This product offers the following functions.

Category	Function	Recommended	Method
Control part	Power on		Press the power switch.
	Power off		Press the power switch.
			Shut down Windows.
	Set password		Set in BIOS.
			Set in Windows.
	Change brightness	√	Set using specific utility.
			Can be embedded into the customer's application. (A specific API is available)
	Touch panel calibration		Operate using specific utility.
	Buzzer when touch panel is touched		Operate using specific utility.
	Adjust speaker volume		Set in Windows.
	Switch boot drive		Switch to DVD drive, etc. in BIOS.
Printer	Power on/off	√	Press the power switch.
		√	Operate using specific utility.
			Can be embedded into the customer's application. (A specific API is available)
	Printing applications		Commercially available printing applications can be used.
			Printing applications developed by the customer can be used.
	Control printing	√	Set using printer driver.
			Can be embedded into the customer's application. (A specific API is available)

Category	Function	Recommended	Method
Printer	Print barcodes, 2D symbols	√	Set using printer driver.
			Print an image file from an application.
	Display printer status	√	Displayed in specific utility. (Starts when the status of the device changes)
			Displayed in EPSON Status Monitor3 while printing. (A printer driver function)
			Displayed in the fatal error notification settings screen. (Displayed if EPSON Status Monitor 3 is not being used at the time of error) (A printer driver function)
	Change paper* (Roll paper to/from fanfold paper)	√	Operate using specific utility.
			Can be embedded into the customer's application. (A specific API is available)
	Auto cut	√	Set using printer driver.
			Press the CUT button.
			Can be embedded into the customer's application. (A specific API is available)
	Paper feed	√	Set using printer driver.
			Press the FEED button.
			Can be embedded into the customer's application. (A specific API is available)
	Post-Printing Verification Settings	Set using printer driver.	
	Reprint after an error	Set using printer driver.	
	Head Cleaning	√	Set in printer driver's Post-Printing Verification prior to printing.
			Operate using printer driver.

Category	Function	Recommended	Method
Printer	Media position detection	√	Set using printer driver.
			Can be embedded into the customer's application. (A specific API is available)
	Other printer settings	Set using printer driver.	

*The printer needs to be set the printer and the printer driver.

Post-Printing Verification Settings

This product monitors dot missing periodically with the auto nozzle check system, and performs the auto head cleaning if any dots are missing. Select from 6 modes that are available for different levels of requirements for print quality and movement.
When extremely high reliability and safety are required, be sure to detect dot missing using an application in addition to the printer driver setting. For the details, see "When Extremely High Reliability and Safety are Required" on page 138.
Sets this function from (Post-Printing Verification Settings) on (Maintenance And Utilities) of the printer driver. The printer's Post-Printing Verification Settings can be checked using Self-test Mode. For the details, see "Self-test" on page 167.

- **High Reliability Mode (Void Image Print)**
  Missing dots check is performed after printing each page to check that dot missing has not occurred. When dot missing is detected, the Void Image Print is performed at the bottom of the previous page. And after the dot missing is resolved by the auto head cleaning, reprinting starts from the corresponding page.
  The Void Image is printed in solid black by default; however, other image files can also be registered. Since dots are missing for the page on which the Void Image is printed, take proper action such as discarding it.

- **High Reliability Mode (Reprint)**
  Missing dots check is performed after printing each page to check that dot missing has not occurred. When dot missing is detected, the following screen of the EPSON Status Monitor 3 is displayed. Select the next operation from (Restart printing) (printing the next data) and (Reprint) (reprinting after dot missing is resolved by the auto head cleaning.)

- **Economy Mode for Low Print Volume (Void Image Print)**
  Missing dots check is performed after printing each page with removing the timer cleaning.
  When dot missing (more than neighboring 2 dots missing) is detected, the Void Image Print is performed at the bottom of the previous page. And after the dot missing is resolved by the auto head cleaning, reprinting starts from the corresponding page.
  The Void Image is printed in solid black by default; however, other image files can also be registered.

- **Economy Mode for Low Print Volume (Reprint)**
  Missing dots check is performed after printing each page with removing the timer cleaning.
  When dot missing (more than neighboring 2 dots missing) is detected, the EPSON Status Monitor 3 is displayed. Select the next operation from (Restart printing) (printing the next data) and (Reprint) (reprinting after dot missing is resolved by the auto head cleaning).
  When customer want to select this mode, do NOT uncheck (Use EPSON Status Monitor 3) of (Driver Preferences) in (Driver Utilities) tab.

- **Anti-missing Read Mode**
  Does not perform missing dots check after printing each page, but checks missing dots while not printing.

- **Anti-missing Color Mode**

  Does not perform missing dots check after printing each page, but checks missing dots while not printing. Prevents missing colors due to missing dots on the condition with adjoining 2 dots in above and below or 3 dots in all nozzles. Does not perform head cleaning to missing dots with less than 2 dots that are not adjoining.

CAUTION	• These functions do not guarantee a 100 percent prevention of dot missing. • Small amount of ink is used for detecting nozzle clogging. • The auto head cleaning is performed automatically after nozzle clogging is detected. Ink is expended during the head cleaning. • Nozzle clogging detect function cannot be disabled. • When you want to select [High Reliability Mode (Reprint)] or [Economy Mode for Low Print Volume (Reprint)], do not uncheck [Use EPSON Status Monitor 3] of [Driver Preferences] in [Driver Utilities] tab.
NOTE	In the High Reliability Mode or Economy Mode for Low Print Volume, printing takes more time since the missing dots check is performed after printing each page.

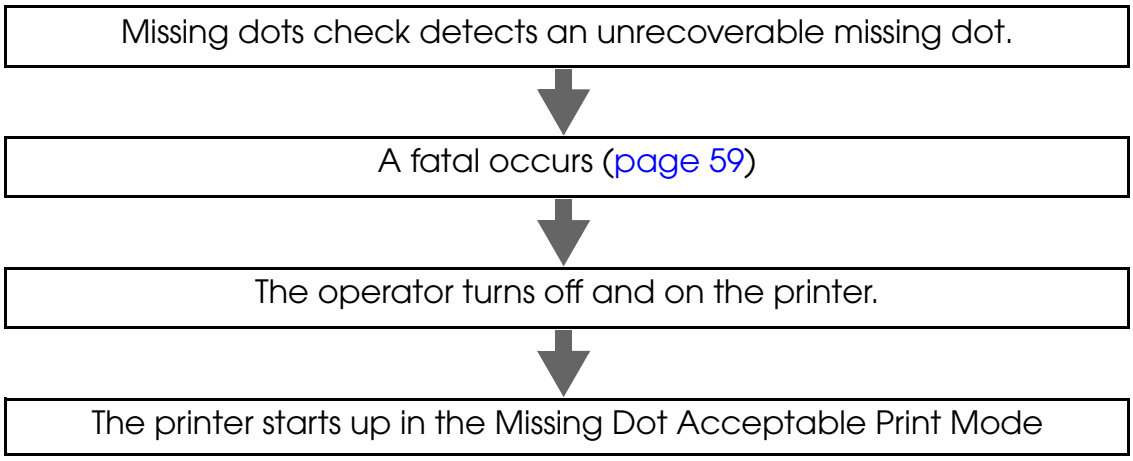
When an unrecoverable missing dot occurs, the printer operates differently for each mode as shown below.

Printer Status	Fatal error	Maintenance error	
Post-Printing Verification	• High Reliability Mode • Economy Mode for Low Print Volume • Anti-missing Read Mode	• High Reliability Mode • Economy Mode for Low Print Volume • Anti-missing Read Mode	Anti-missing Color Mode
Number of Missing Dots	1 dot	2 or more dots	• Adjoining 2 dots • 3 or more dots
Printer Usability	√ (Missing Dot Acceptable Print Mode*)	X (The printer needs repair)	

* For details on the Missing Dot Acceptable Print Mode, refer to "When an Unrecoverable Missing Dot Occurs" on page 21.

When an Unrecoverable Missing Dot Occurs

When 1 dot of unrecoverable missing dot is detected with the Post-Printing Verification Settings for the printer driver set to the High Reliability Mode /Economy Mode for Low Print Volume /Anti-missing Read Mode, the printer becomes in fatal error status. To continue printing, turn off and on the printer and change the mode to the Missing Dot Acceptable Print Mode.


Missing dots check detects an unrecoverable missing dot.
A fatal occurs (page 59)
The operator turns off and on the printer.
The printer starts up in the Missing Dot Acceptable Print Mode

In the Missing Dot Acceptable Print Mode, it takes long to complete printing because missing dots check is performed after printing each page. The EPSON Status Monitor 3 appears each time of printing until the missing dot error is resolved. (The window may not appear depending on the printer driver version.)

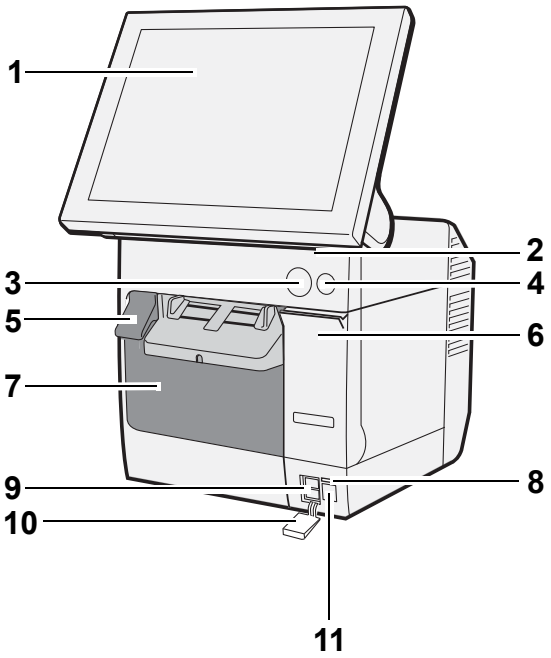
CAUTION

- In the Missing Dot Acceptable Print Mode, EPSON Status Monitor 3 is displayed even if [Use EPSON Status Monitor 3] is not selected in [Driver Preferences] from the [Driver Utilities] tab.
- When 2 or more dots of unrecoverable missing dot is detected in the Missing Dot Acceptable Print Mode, maintenance is requested and the printer needs repair.

Parts Name and Function

This section describes the name and function of each part in the product.

Front



1	**Touch panel**

Displays the menu and messages. Touch the screen to operate the product.

2	**Speaker**

Based on the settings, plays a sound when the touch panel buttons are pressed, when an error occurs, and when printing is completed.

3	**CUT button**

Push this button to cut the paper.

4	**FEED button**

Push this button to feed the paper.

5	**Release lever**

Pull to open the roll paper cover.

6	**Ink cartridge cover**

Open to set/replace the ink cartridge.

7	**Roll paper cover**

Open to set/replace the paper.

8	**Power lamp**

A green light will light up when the power of the product is on. The light will turn off when the power is off.

9	**USB connector (x2)**

Connect a USB memory, keyboard, or mouse.

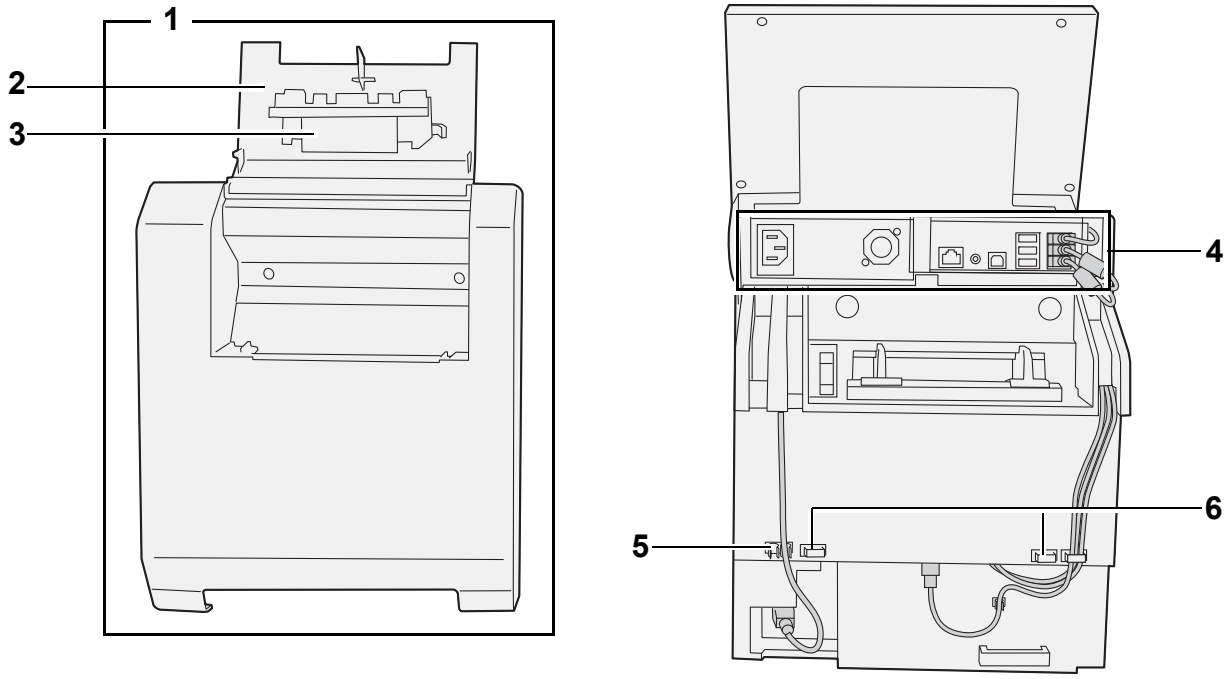
10	**USB cover**

Use the cover when USB connectors are not used.

11	**Power switch**

Push this button to turn on/off the power of the product.

Back



1	**Rear cover**

Remove when connecting connectors.

2	**Fanfold paper cover**

Open to insert fanfold paper.

3	**Paper feed guide**

Install the guide when you use the fanfold paper.

4	**Connector part**

Connect each cable. For details, see "<Rear Connector Part>" on page 24.

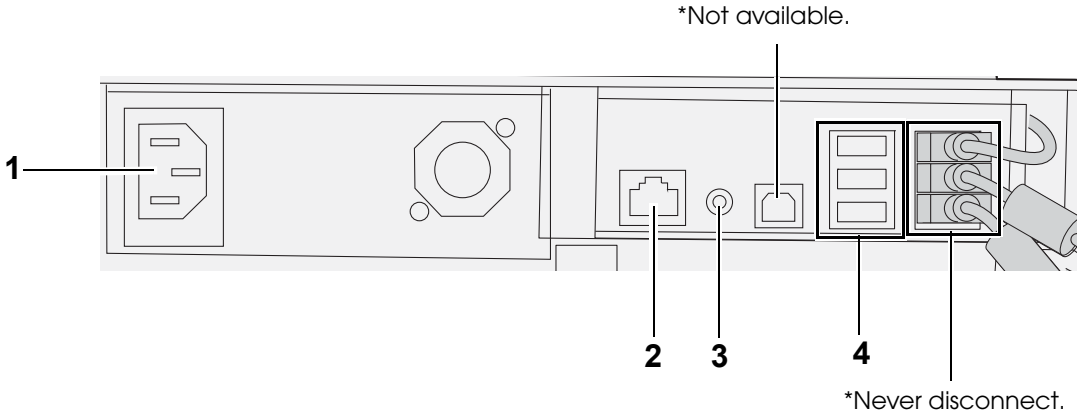
5	**Power cord hook**

Prevents the power cord from piling on other cables. Be sure to pass it through the hook.

6	**Cable holders**

Prevents the cables from piling on each other. When connecting the LAN cable, USB cable, or audio cables, be sure to pass them through the holder.

<Rear Connector Part>



CAUTION	Never disconnect the 3 USB connectors on the right side that are initially connected on the product.

1	**Power connector**

Connect the power cord.

2	**LAN connector**

Connect a LAN cable when using a wired LAN connection.

3	**Speaker output connector**

Connect the speakers.

4	**USB connector (x3)**

Connect a barcode reader or similar device.

NOTE	To connect the rear connectors, you need to remove the rear cover. For details on how to remove the cover, see "Connecting the Cable" on page 37.

Basic Operations

This section describes the basic operation methods of the product that can be used by an operator and the general operations of the product.

Power On/Off

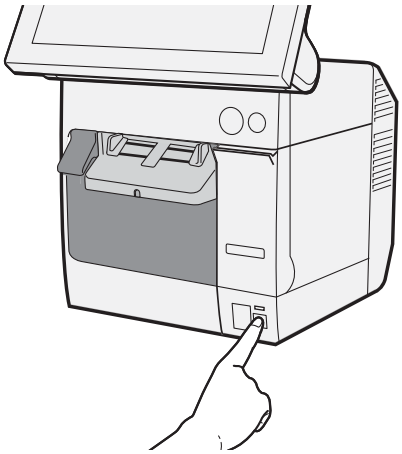
Power On

When the power is turned on, the power lamp will light up, Windows will start and a screen will be displayed, and the power of the printer will turn on.

❏ Press the power switch.

NOTE

The printer can also be network booted from another PC that is connected via LAN.



Power Off

When the power is turned off, the printer's power off sequence will be executed, Windows will be shut down, and the power will turn off.

❏ Press the power switch.

❏ Windows will be shut down.

NOTE

- To prevent operation errors, the button can be set so that it cannot be used to turn off the power.
  This can be set in [Start]-[Control Panel]-[Power Options]-[Advanced]-[Power buttons].
- Do not turn off the power using the commercial circuit breaker. The printer's power off sequence will not be executed and the ink may become clogged.
- If the power is cut off due to an outage, etc., turn on/off the power of the product after the power is restored.

Turning On/Off the Power of the Printer

It is possible to specifically control the power of the printer portion of the product. While the product is operating, by turning on/off the printer only when you need to print, it is possible to reduce the standby power consumption.
The power status of the printer can be verified using the "Printer Power ON/OFF" utility.

NOTE

- An API is available for turning on/off the power of the printer using the customer's application. (See "TM-C3400-LT Reference Library" on page 132)
- There is no power lamp for the printer.

Turning On the Printer

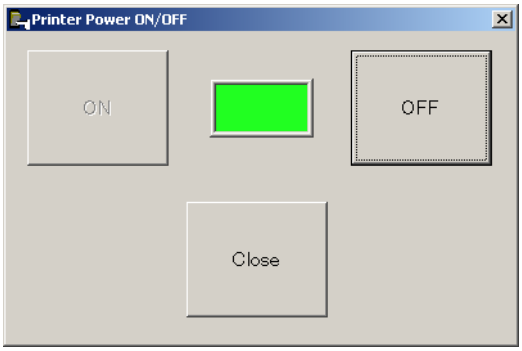
When the printer is turned on, the printer's power on sequence will be executed, the fan will operate for several seconds, and the printer will become ready to print.

❏ When the power switch is pressed, the power of the main unit and the printer will turn on together. (default setting)

❏ If Windows is running, turn on the printer using the "Printer Power ON/OFF" utility.

Double-click TMC34LT_POWER on the desktop.

Press the On button. When the power of the printer turns on, the power status of the printer will change to green.



Turning Off the Printer

When the printer is turned off, the printer's power off sequence will be executed, the fan will operate for several seconds, and the power will turn off.

❏ Press the Off button in the "Printer Power ON/OFF" utility.
The power status of the printer will change to gray.

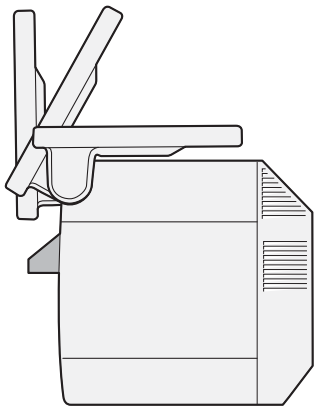
Touch Panel Operations

CAUTION

- Do not place heavy objects on the touch panel. The touch panel may be damaged because it uses glass.
- Do not push or scrub the touch panel. Also, do not push it with a sharp pointed object.
- Use of a touch panel protection sheet is recommended if this product is used in an environment where users' hands are easily soiled by sand, dirt, etc.

Adjusting Touch Panel Angle

You can slide the touch panel to adjust the angle so that it is easy to use.



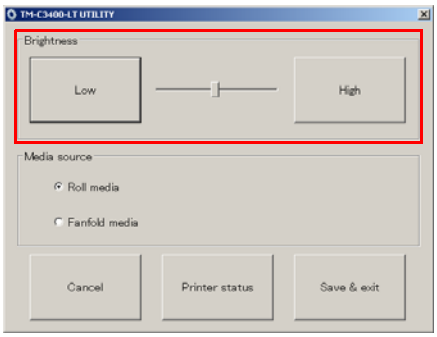
Adjusting Touch Panel Brightness

The brightness of the touch panel can be adjusted using the TM-C3400LT UTILITY.

NOTE

For details, see "TM-C3400LT Utility" on page 56.

1. Double-click "TMC34LT_UTIL" on the desktop.
2. Adjust the brightness.



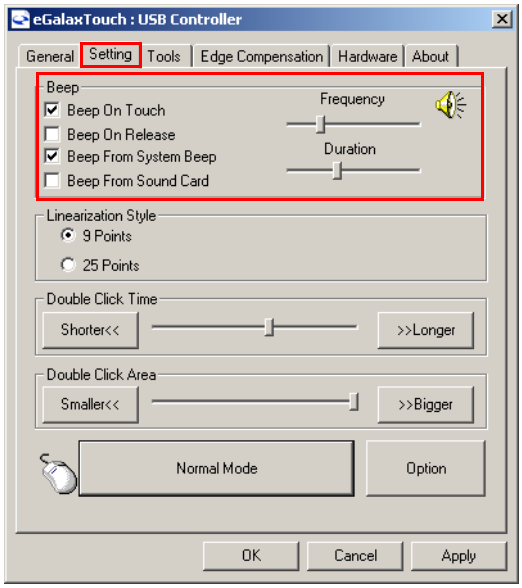
Adjusting the Beep Sound

The beep sound can be adjusted using the touch panel utility.

> NOTE
>
> For details, see "Touch Panel Utility" on page 62.

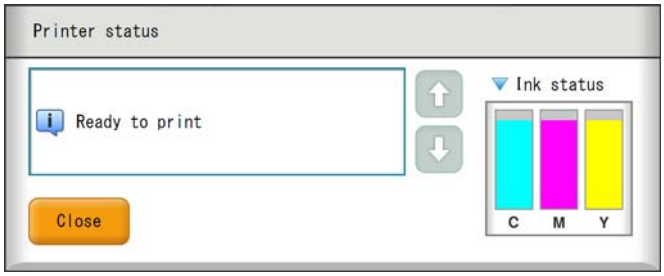
1 Select (Start)-(All Programs)-(eGalax Touch)-(Configure Utility).

2 In the (Setting) tab, under (Beep), adjust the beep sound.



Printer status

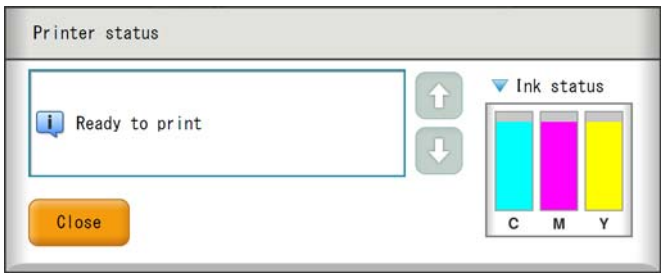
The Printer Status utility monitors the printer's status, and when an error or warning condition occurs, it is displayed on the screen.
After confirming the error/warning, press the (Close) button to close the screen.
When the printer is in a normal state, the "Printer Status" will not be displayed.



NOTE	It is also possible to display the printer status display utility from "TMC34LT_UTIL" on the desktop.

Verifying the Ink Level

The ink level can be verified using the Printer Status utility.



When the ink level becomes low, and it is almost time to replace the ink cartridge, a message will be displayed onscreen. Prepare a new ink cartridge.

When it becomes time to replace the ink cartridge, a message will be displayed onscreen and the product will stop printing. You will not be able to print until you install a new ink cartridge.

NOTE

- The ink cartridge that is shipped with the product is for initial ink charging. When an ink cartridge is installed for the first time (during setup), ink will be consumed for ink charging, and you will need to replace the ink cartridge earlier than usual.
- The amount of ink consumed will vary depending on the use environment and use conditions of the product.
- To preserve the quality of the print head, it will become time to replace the ink cartridge before the ink in the cartridge is completely used up.
- The ink cartridge contains 3 colors of ink. Even when one particular color is specified, all 3 colors of ink are used for printing and for keeping the print head in good condition. When the ink level of even one color comes to the lowest limit, the product stops printing.

Ink Cartridge Replacement Procedure

See "Loading the Ink Cartridge" on page 47. The same procedure can be used for replacing the cartridge. Pull out and remove the used ink cartridge.

For the ink cartridge model, see "Ink Cartridge" on page 211.

Replacing the Paper

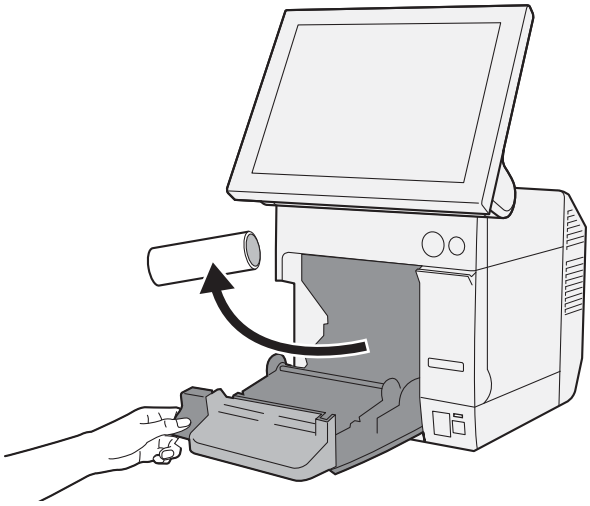
This section describes how to replace the paper with the same type of paper when it is used up.

NOTE

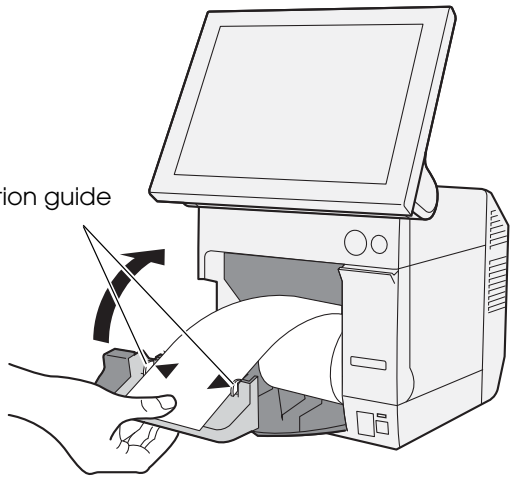
For details on replacing the paper, see "Replacing the Paper" on page 139.

Roll Paper

1 Pull the release lever to open the roll paper cover, and remove the roll paper core.



2 Load the roll paper completely inside the printer, and while aligning the paper to the paper ejection guide, close the roll paper cover.

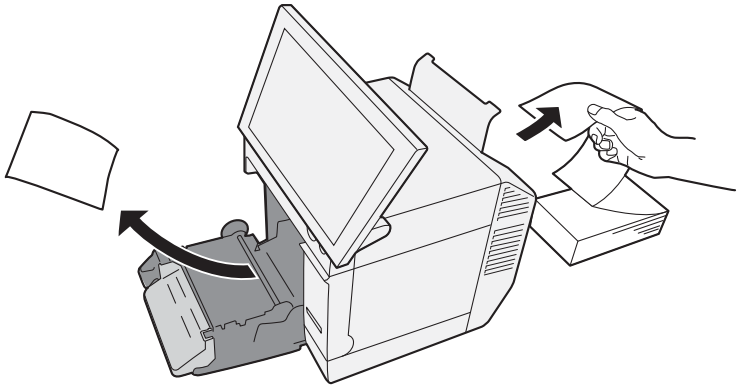


The roll paper will be automatically fed.

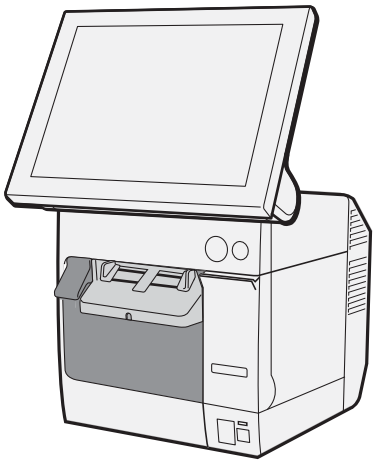
This completes the paper replacement procedure.

Fanfold Paper

1 Open the roll paper cover and fanfold paper cover and remove the paper.

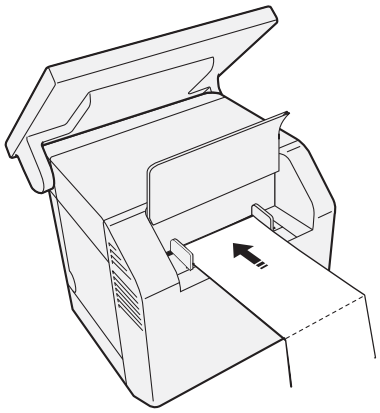


2 Close the roll paper cover.

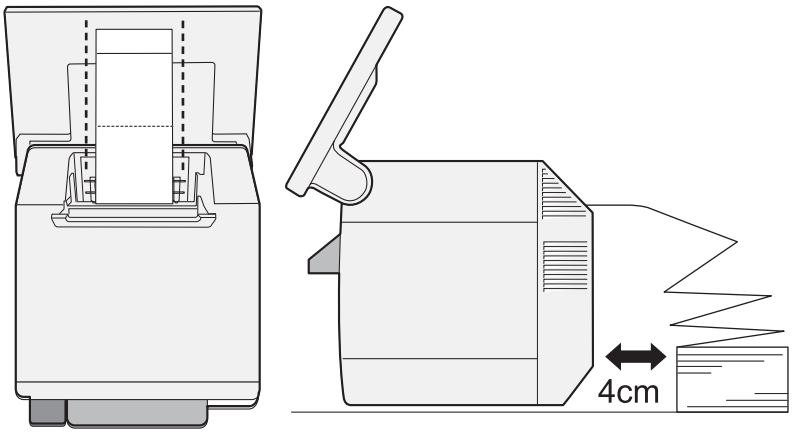


3 Insert paper with the printable side up, until the paper is pulled inside (approximately 10cm).

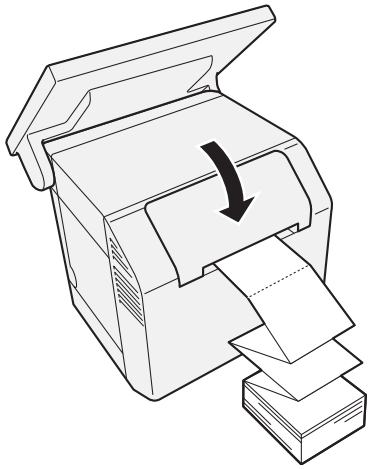
The paper will be automatically fed.



4 Place the paper straight at least 4 cm from the rear of the product.



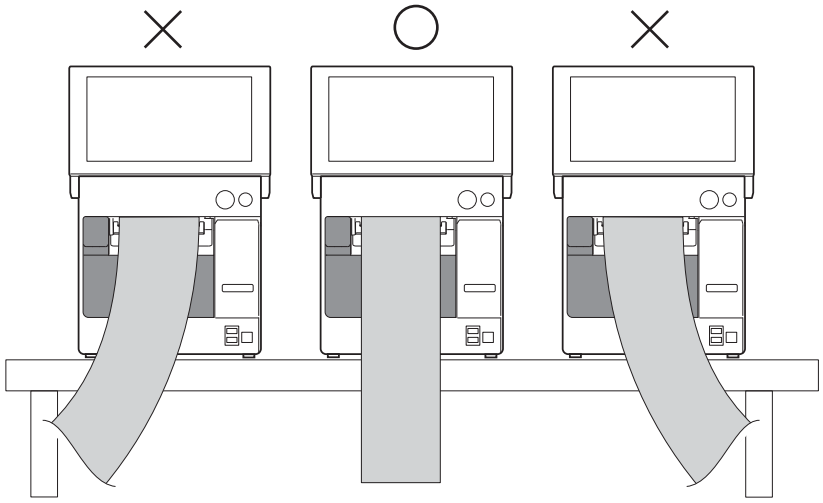
5 Close the fanfold paper cover.



This completes the paper replacement procedure.

Ejection Angle of Printed Paper

Make sure paper is ejected straight from the paper ejection guides, as shown in the illustration.
If paper is not ejected straight due to such causes as an obstruction, the print result may be distorted.



Printer Buttons

FEED button

❏ Feeds the paper continuously when media position detection is set to "No Detection".

- The paper is fed by 15 mm if FEED button is pressed once.
- If the FEED button is held down, the paper is continuously fed until the button is released. (6 seconds at a maximum)

❏ Feeds the paper to the print starting position when media position detection is set to "Detects Black Marks" or "Detects Margins Between Labels".

CUT button

❏ Feeds the paper to the first auto cut position on the next page and cuts the paper automatically when media position detection is set to "No Detection".

❏ Feeds the paper to the autocut position by detecting the gap between the black marks or labels and cuts the paper automatically when media position detection is set to "Detects Black Marks" or "Detects Margins Between Labels".

NOTE	The media position detection setting is set on [Maintenance And Utilities] tab on the printer driver.

Setup

Flow of Setup

This chapter consists of the following sections along with the setup flow of the product and peripherals.

1. Installing the Printer (page 36)

↓

2. Connecting the Cable (page 37)

↓

3. Loading the Paper (page 42)

↓

4. Initial Settings (page 46)

↓

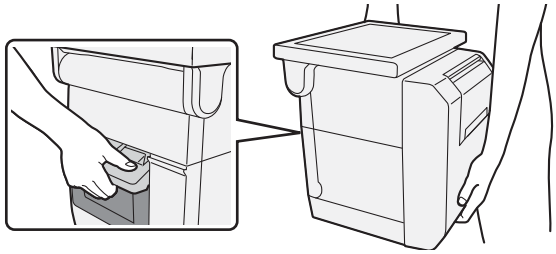
5. Loading the Ink Cartridge (page 47)

↓

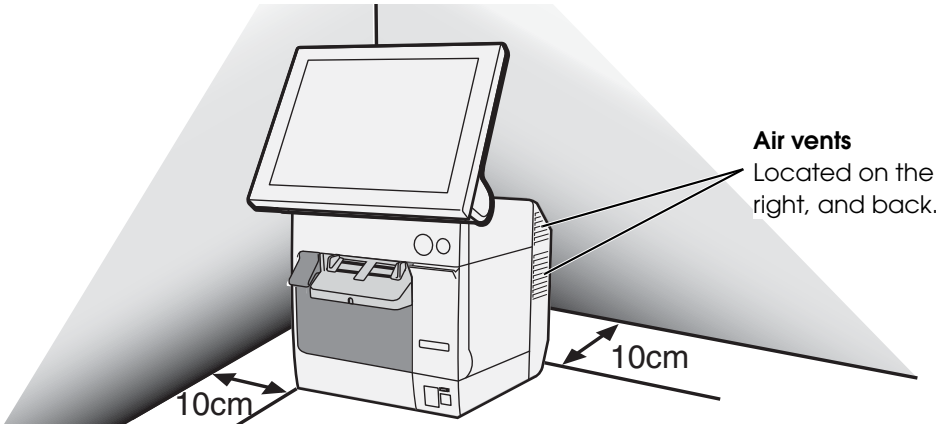
6. Attaching/Adjusting the Paper Ejection Tray (page 49)

Installing the Printer

Install the product at an appropriate place, leaving enough space around the product.
If you install the product against a wall, keep the rear and sides of the product more than 10 cm from the wall.

⚠ **WARNING**	**Do not block the air vents on this product.** Blocking the air vents may result in internal heat build-up and fire.
⚠ **CAUTION**	• **Install the product horizontally on a flat, stable, and vibration-free surface.** Otherwise, the roll paper cover may not operate correctly, and your fingers may be caught. • **Do not tilt the product with the roll paper cover open.** The roll paper cover may close unexpectedly, and your fingers may be caught.
CAUTION	When carrying the product, be sure to hold the parts as shown in the picture below. 

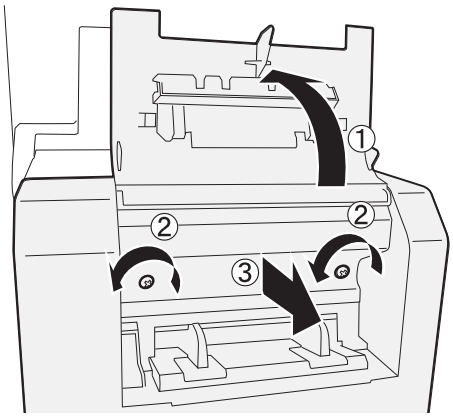
Installation



- Leave enough space for the roll paper cover, ink cartridge cover, and fanfold paper cover to be fully opened.
- Protect the product from heavy impacts. They may cause defective print.
- Do not allow cables to catch or foreign matter to accumulate under the product.

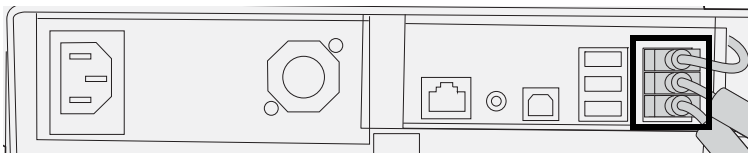
Connecting the Cable

To access to the rear connectors, you need to remove the rear cover.
Open the fanfold paper cover (1), loosen the two screws (2), and then remove the rear cover (3). After connecting the cable, be sure to re-install the rear cover.

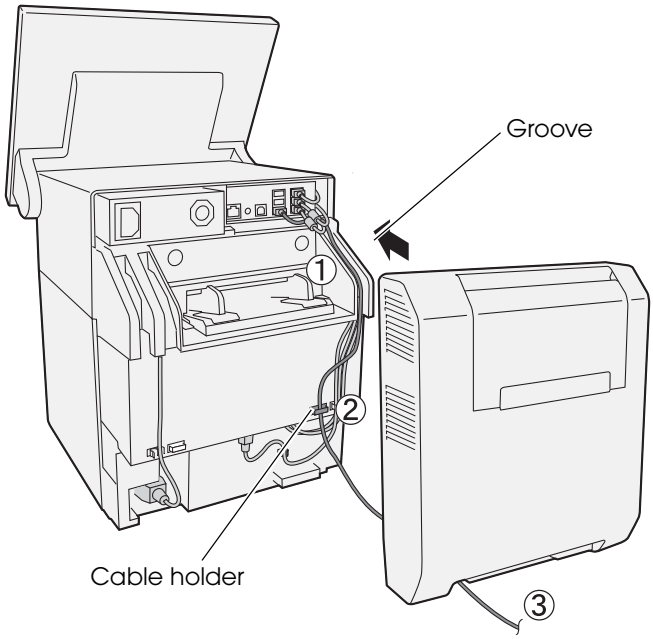


CAUTION

- Never disconnect the cables initially connected to the USB connectors on the right.

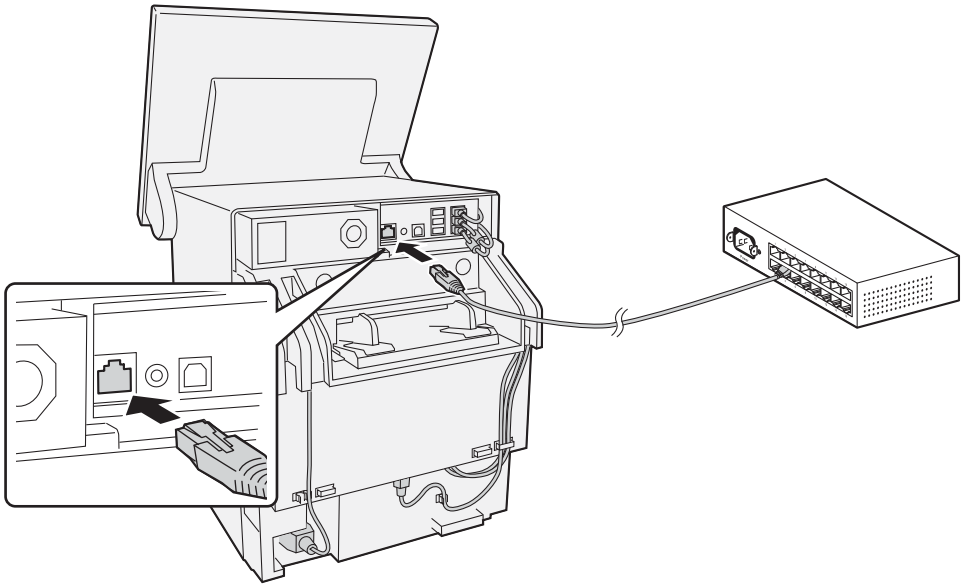


- When connecting USB devices to the USB connector, be sure to pass the cable through the groove (1), hook the cable holder (2), pull it out from the bottom of the rear cover (3), and then reattach the rear cover.
  The cable holder prevents the cables from piling on each other. If the power cord or other cables are piled on each other, the rear cover cannot be attached.



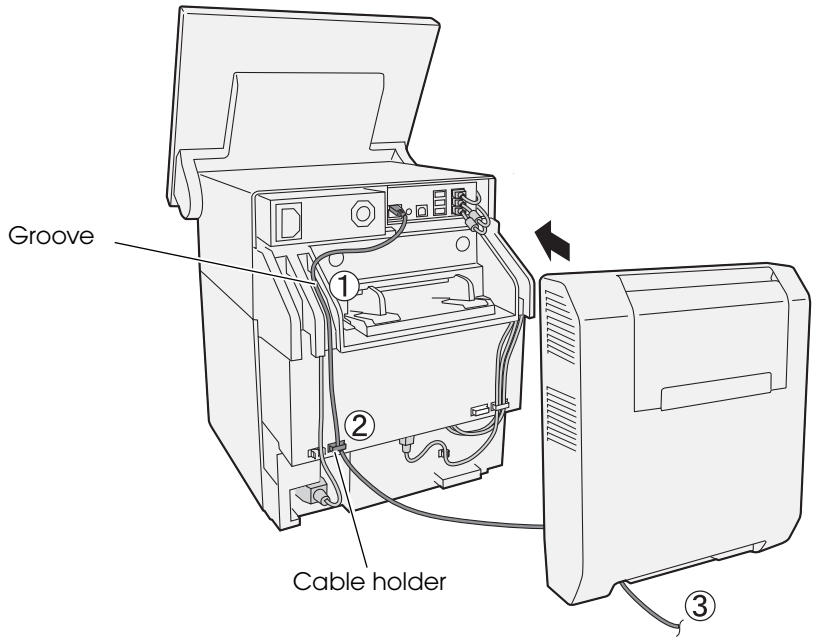
Connecting LAN cable

To connect this product to a network, connect the LAN cable to the LAN connector.
When you use the product as a standalone device, connecting the LAN cable is not required.



CAUTION

Be sure to pass the LAN cable through the groove (1), hook the cable holder (2), pull it out from the bottom of the rear cover (3), and then reattach the rear cover.
The cable holder prevents the cables from piling on each other. If the power cord or other cables are piled on each other, the rear cover cannot be attached.



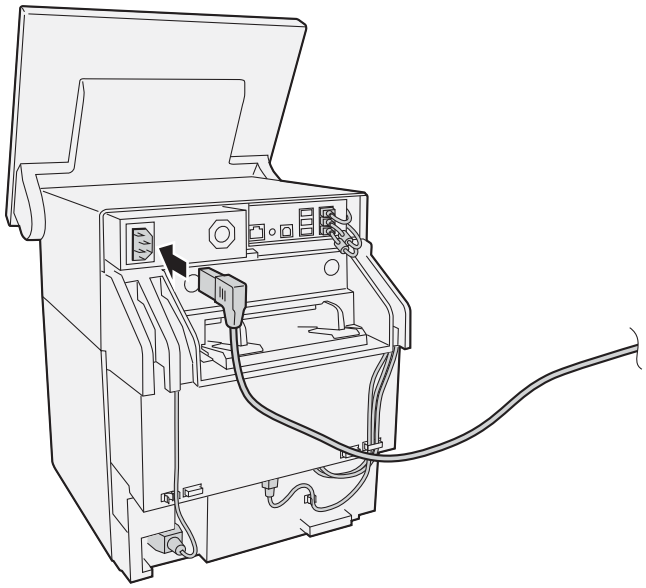
Connecting power cord

Follow the steps below to connect the product to the power supply.

WARNING

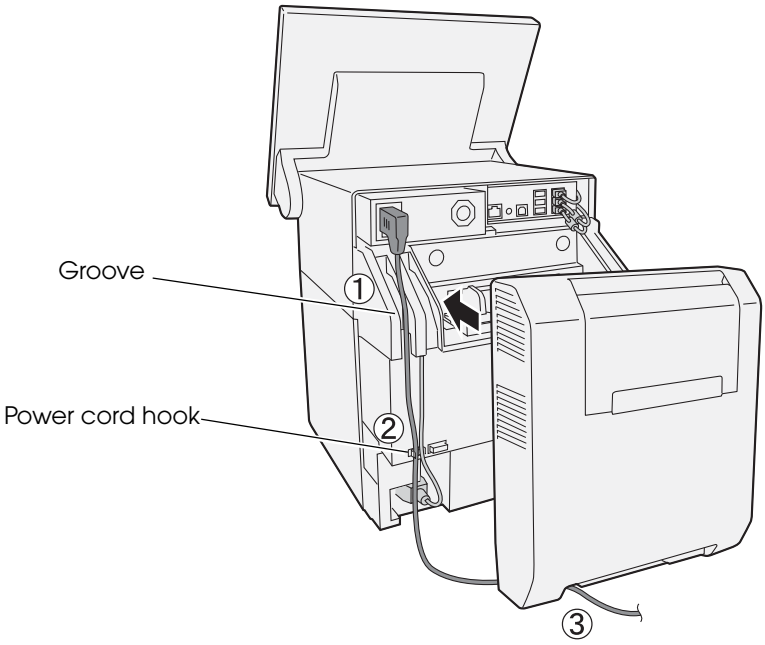
- **Be sure to use the power cord that is included with the product, and ground it.**
- **Be sure to use the specified power supply.**

1 Connect the power cord to the power supply connector.

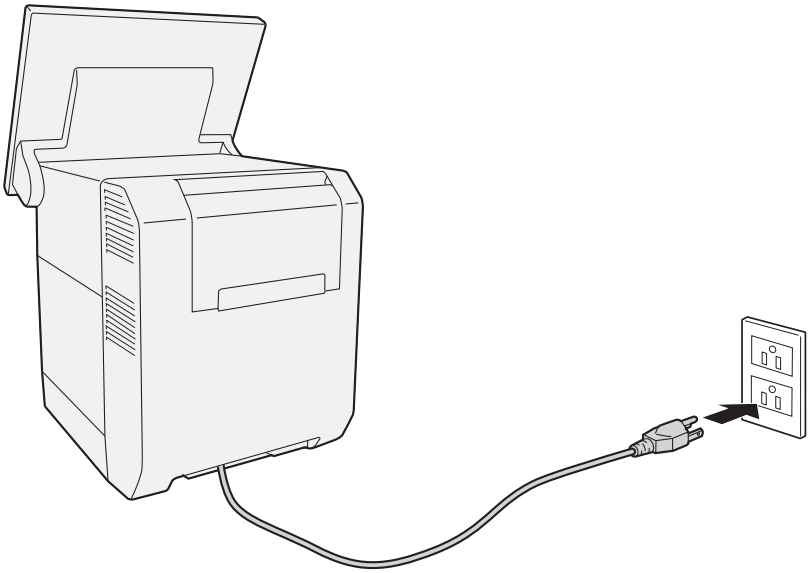


CAUTION

Be sure to pass the power cord through the groove (1), hook the power cord hook (2), pull it out from the bottom of the rear cover (3), and then reattach the rear cover.
The power cord hook prevents the cables from piling on each other. If the power cord or other cables are piled on each other, the rear cover cannot be attached.



2 Connect the power plug to the wall outlet.



CAUTION

Do not turn on the power before loading the roll paper. For details on how to load the roll paper, see "Loading the Paper" on page 42.

Connecting a Barcode Reader

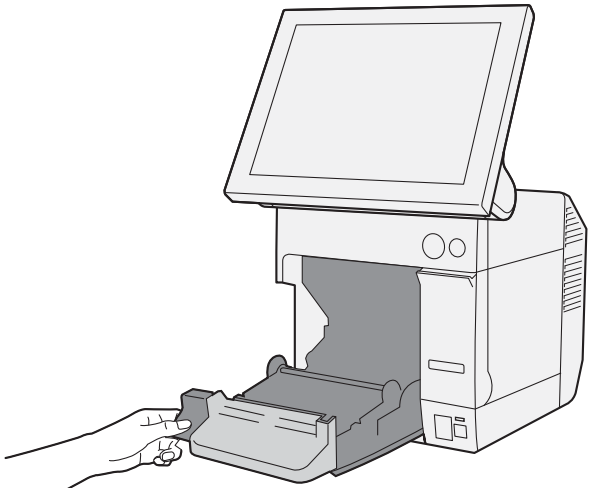
When using a barcode reader, connect it to a USB connector at the rear of the product.

Loading the Paper

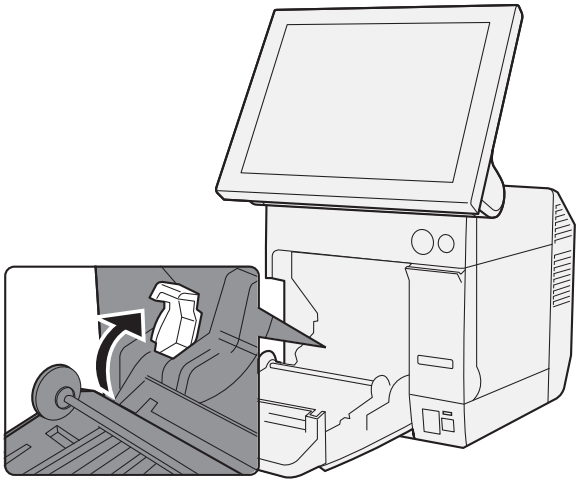
This section describes how to set the paper for the first time.
For information on how to replace the paper during regular use, see "Replacing the Paper" on page 139.

> **CAUTION**
>
> The product is shipped with factory default settings set to use the label roll paper shipped with the product.
> When loading the paper for the first time (during setup), be sure to load the label roll paper shipped with the product and perform ink cartridge charging (see "Loading the Ink Cartridge" on page 47). When paper other than the label roll paper shipped with the product is loaded, ink cartridge charging cannot be performed.
> After completing the initial settings (see "Initial Settings" on page 46), you can replace the paper with another. For details on how to replace the paper, see "Replacing the Paper" on page 139.

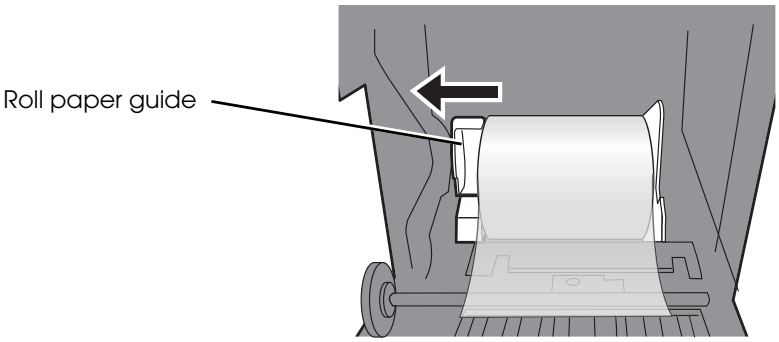
1 Press down the release lever, and pull it to the front to open the roll paper cover.



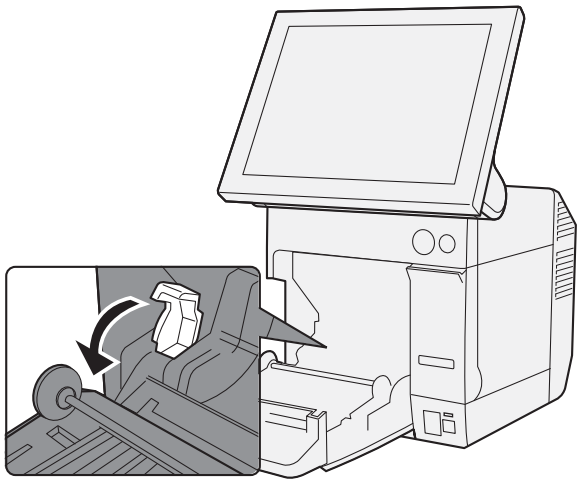
2 Unlock the roll paper guide.



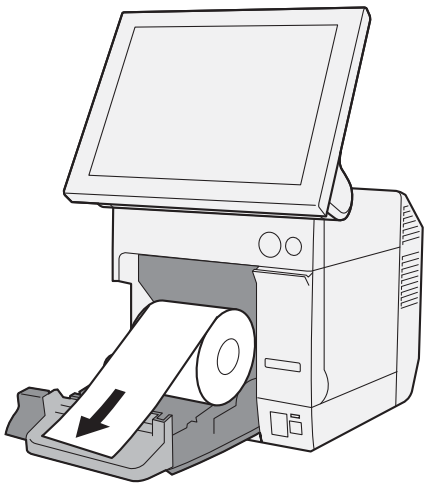
3 Press the roll paper guide in the direction of the arrow and align it with the width of the label roll paper shipped with the product.



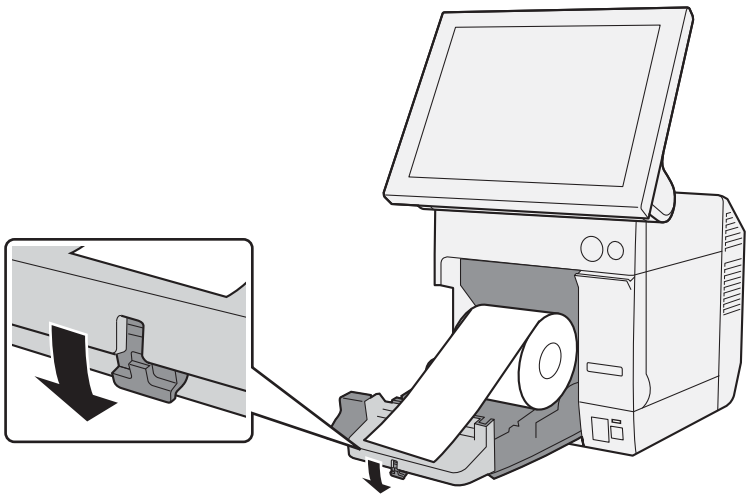
4 Lock the roll paper guide.



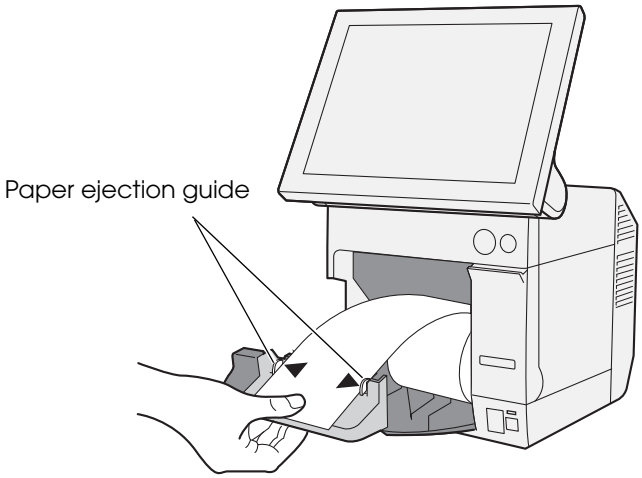
5 Unroll the paper slightly by pulling it forward and insert the roll paper all the way to the back with the printable side up.



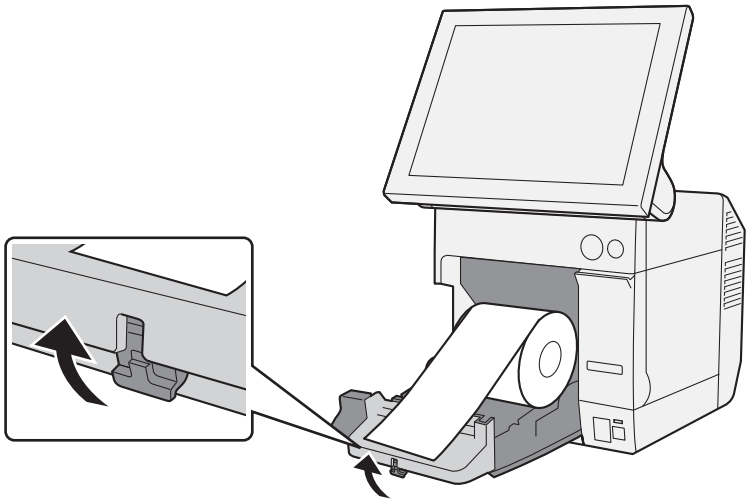
6 Release the lock of the paper ejection guide.



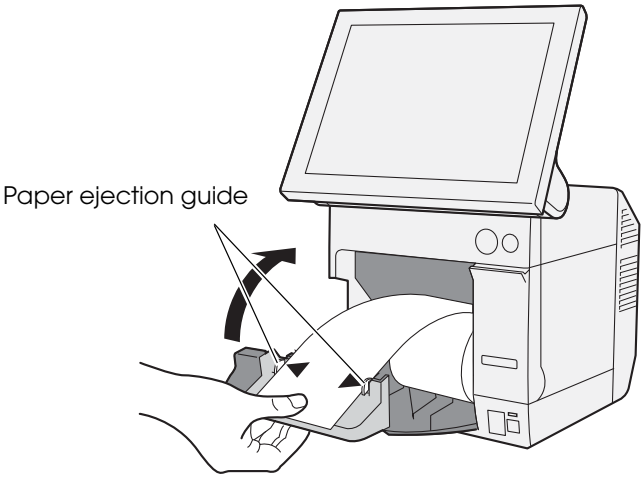
7 Align the paper ejection guide with the roll paper width.



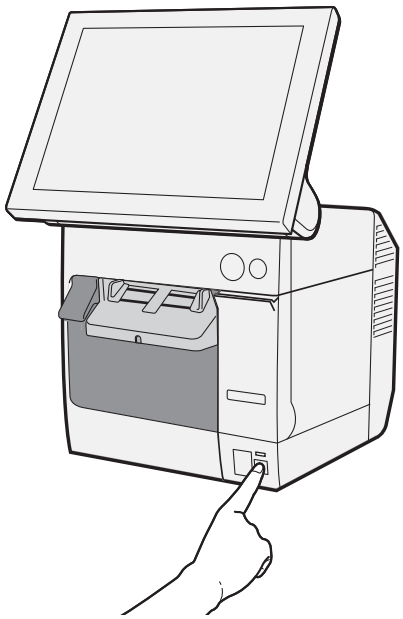
8 Lock the paper ejection guide.



9 Close the roll paper cover while aligning the roll paper with the paper ejection guide.



10 Press the power switch to turn the power on.



Once you are finished loading the paper, perform the initial settings on the product. (See "Initial Settings" on page 46.)

Initial Settings

This section describes the OS setting procedure when the power of the product is turned on for the first time.

1. When the power of the product is turned on for the first time, the Windows Setup screen is displayed for a period of time.

2. The "License Agreement" screen will be displayed. Verify the contents and select "I accept this agreement". Click the (Next) button.

3. Windows settings such as the network driver will be automatically set.
   Set the product's network settings, such as the IP address, after the setup is complete.

4. The main unit will automatically restart.

5. After the product restarts, select (Start) - (Control Panel) - (Date and Time) and display "Date and Time Properties". Set the date, time, and time zone.

Once the initial settings are complete, load the ink cartridge and perform ink charging. (See "Loading the Ink Cartridge" on page 47.)

Loading the Ink Cartridge

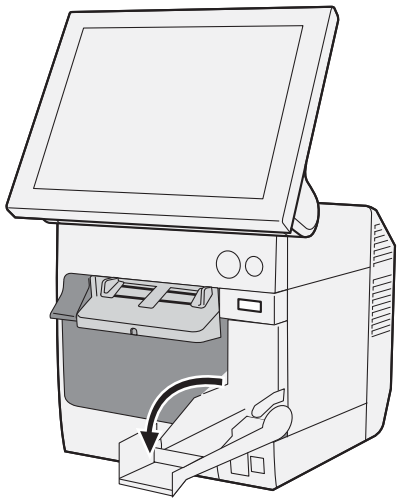
This section describes the procedure for loading the ink cartridge for the first time and performing ink charging.

CAUTION

- When loading the ink cartridge for the first time, be sure to load the label roll paper shipped with the product before loading the ink cartridge. (See "Loading the Paper" on page 42.)
- Store the ink cartridge in a cool and dark space and use it before the expiration date printed on the individual package. Use up the ink within 6 months after opening the package.
- Do not open the ink cartridge package until you are ready to load it in the product. The ink cartridge is vacuum packed to preserve its quality.
- After storing the ink cartridge in a cold place for a long period of time, leave the ink cartridge at room temperature for 3 hours or more before using it.
- Do not touch the green board on the ink cartridge. You may not be able to print correctly.
- Do not disassemble or alter the ink cartridge. You may not be able to print correctly.
- To enable maximum printer performance, we recommend that you use a genuine Epson ink cartridge (model: SJIC15P). If you use an ink cartridge other than a genuine Epson cartridge, it may adversely affect the printer hardware and print quality, and you may not be able to obtain maximum printer performance. We do not insure the quality and reliability of ink cartridges other than genuine Epson cartridges. A fee will be charged for repairing a damaged or failed product caused by using a non-genuine ink cartridge even if it is during the warranty period.
- Do not remove the ink cartridge from the product when you ship it.

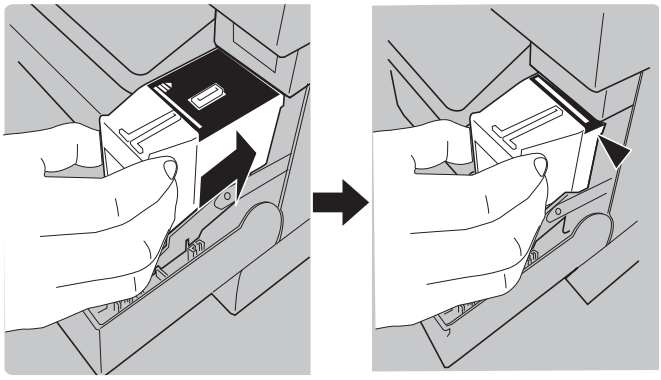
1 Verify that the power is on (the power lamp is lit) and that the label roll paper shipped with the product is loaded.

2 Pull down the ink cartridge cover to the front to open it.

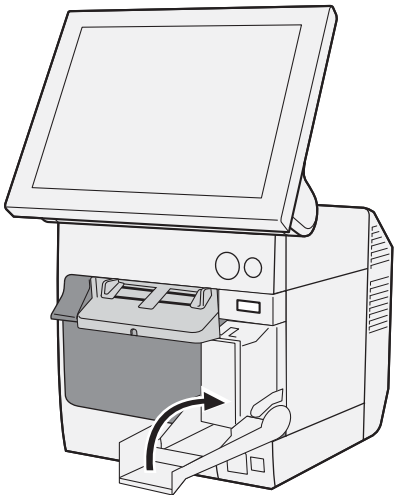


3 Shake new ink cartridge package 4 or 5 times before opening it and take out the ink cartridge from the package.

4 Push the ink cartridge gently into the cartridge holder as shown below.



5 Close the ink cartridge cover.



The ink charging will start. When an ink cartridge is loaded in the product for the first time, the ink charging will take approximately eight minutes.

CAUTION	• During the ink charging, do not turn off the power or open the roll paper cover or ink cartridge cover. • If the ink cartridge and roll paper necessary for initial ink charging are not loaded, a factory default state message will be displayed in the Printer Status utility. (See "No ink charged" on page 59)
NOTE	The ink cartridge that is shipped with the product is for initial ink charging. When an ink cartridge is loaded for the first time, ink will be consumed (for ink charging) to enable the product to print.

Once you are finished loading the ink cartridge, attach/adjust the paper ejection tray on the product. (See "Attaching/Adjusting the Paper Ejection Tray" on page 49.)

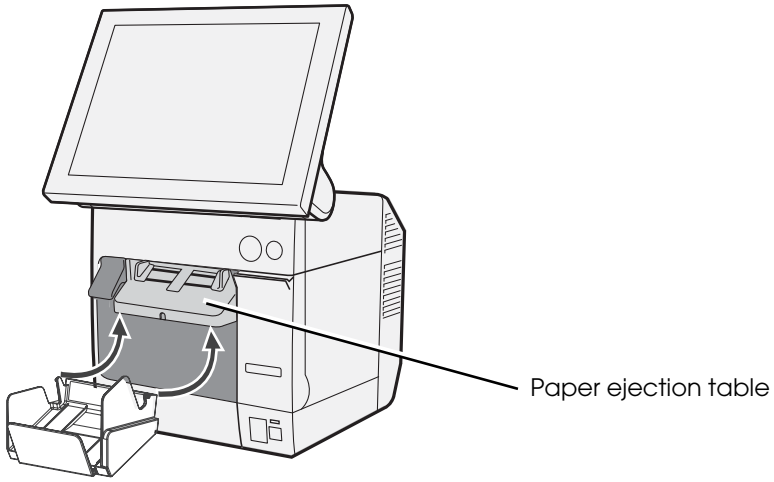
Attaching/Adjusting the Paper Ejection Tray

If you attach the paper ejection tray, you can temporarily store the printed paper in the tray.

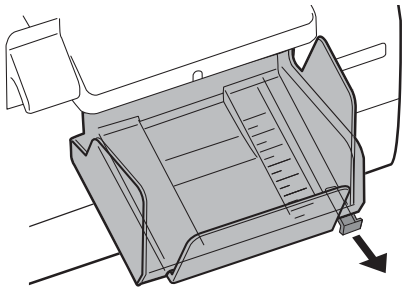
CAUTION Paper may not stay in the paper ejection tray depending on the paper curl and length.

When using the product with the paper ejection tray, attach and adjust the tray using the following procedure.

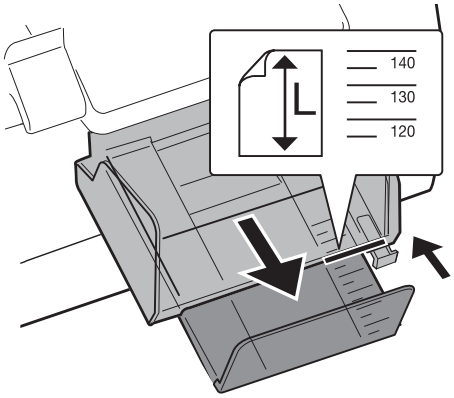
1 Attach the paper ejection tray to the hooks under the paper ejection table.



2 Pull the lever at the bottom-right of the paper ejection tray to unlock it.



3 Slide the bottom tray to align it with the paper length, and lock it.



Preinstalled OS Information

Preinstallation Information

Item		Details
Hard disk format		
	File system	NTFS
	Volume label	TM-C3400-LT
Preinstalled software		
	OS	Windows Embedded POS Ready 2009
	Additional packages	.NET Framework 3.5 SP1
	Driver	Intel inf software
		Intel chipset software utility
		Intel video driver
		Broadcom network driver
		Conexant sound driver
		eGalax touch panel driver
		TM-C3400 printer driver
		LCD brightness adjustment driver
		TM-C3400 power control driver
		TM-C3400 power ON program
		TM-C3400 status display program
	Tool	TM-C3400-LT Utility
		Printer power on/off
		EPSON Net SDK
		TM-C3400-LT Tool
		TM-C3400-LT Tool module
Default information		
	User	Administrator
	User password	TM-C3400-LT

HDD version

To verify the HDD version, see HDVER.TAG in the root directory of the startup drive.
This file is in text format and can be viewed using Notepad, etc. The contents of HDVER.TAG are as follows.

```
[HD Information]
MODEL=Egis-LT 011
OS=POSReady2009
LANG=English
VER=1.00.0
```

Recovery

This section describes the product recovery method.

Items to Verify Beforehand

Verify the following before performing the recovery procedure.

❏ Prepare the following.

- Recovery disk (shipped with the product)
- USB-based DVD drive
- USB keyboard

❏ When the recovery procedure is performed, all data will be deleted. Back up any necessary data before performing the procedure.

Procedure

Follow the steps below to perform the recovery.

> **NOTE** Recovery requires 30 to 45 minutes.

1. Turn off the power of the product.
2. Connect the DVD drive and USB keyboard to the USB connectors on the product.
3. Turn on the power of the product and start BIOS.
4. In the BIOS menu, (Boot) - (Boot Option #1), verify that the DVD drive that is connected is displayed.
5. Insert the recovery disk into the DVD drive and exit BIOS.
6. The system will restart. The system will start using the recovery disk. When the message "Do you recovery? (Y/N)" is displayed press the "y" key + "Enter" key.
7. The recovery process is executed. The message "Please wait for while . . ." is displayed.

8 Once the recovery process is complete, the message "*** INSTALL COMPLETED ***" will be displayed. Next, the message "Press any key to continue . . ." will be displayed. Press any key.

9 The message "Shutdown . . ." will be displayed and the system will shut down.

10 Remove the DVD drive from the USB connectors on the product.

11 Turn on the power of the product. The Windows XP Setup screen will be displayed for a period of time.

12 The "License Agreement" screen will be displayed. Verify the contents and select "I accept this agreement". Click the (Next) button.

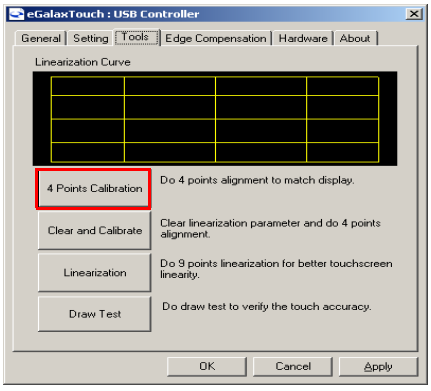
13 "Windows settings such as the network driver will be automatically set.
Set the product's network settings, such as the IP address, after the setup is complete."

14 The main unit will automatically restart.

15 After the product restarts, select (Start) - (Control Panel) - (Date and Time) and display "Date and Time Properties". Set the date, time, and time zone.

16 Select (Start) - (All Programs) - (eGalaxTouch) - (Configurate Utility) to start the touch panel utility.

17 In the (Tool) tab, press (4 Points Calibration) and follow the instructions on the screen to perform the touch panel calibration.



This completes the recovery process.

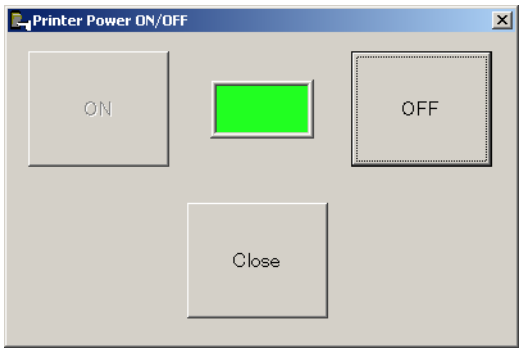
Utility

Printer power ON/OFF

This is for managing the power of the printer.

NOTE

A shortcut to this utility is created on the desktop.
<Storage location of the execution file>
C:\Program Files\EPSON\TM-C3400-LT TOOL\TMC34LT_POWER.exe

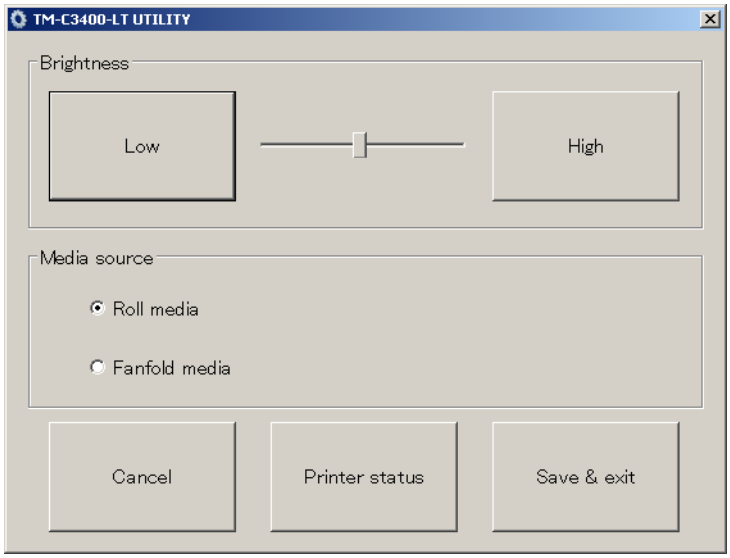


Item	Description
ON	Turns on the power of the printer
OFF	Turns off the power of the printer
Printer's power status	Indicates the power status of the printer. Green: the power of the printer is on. Gray: the power of the printer is off.
Close	Closes (Printer power ON/OFF).

TM-C3400LT Utility

This is for setting the touch panel brightness settings, media source, and verifying the printer status.

CAUTION	This utility cannot be started if the power of the printer is not on. If the power of the printer is off, use [Printer power ON/OFF] to turn on the power of the printer before starting the utility.
NOTE	A shortcut to this utility is created on the desktop. <Storage location of the execution file> C:\Program Files\EPSON\TM-C3400-LT TOOL\TMC34LT_UTIL.exe



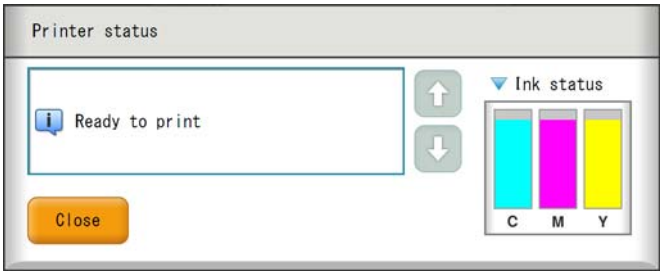
Item	Description
Brightness	Adjusts the display brightness. The adjusted value is saved in TMC34LT_UTL.ini.
Media source	Sets the media source. Select from the following. • Roll media • Fanfold media
Printer status	Displays the printer status. (For details, see "Printer status" on page 57.)
Cancel	Closes the utility without saving the settings and changed value.
Save&exit	Saves the settings and changed value and closes the utility.

NOTE	The media source can be changed only when there is no paper loaded, the roll paper cover is shut, and the printer is in an idle state.

Printer status

This displays the printer status.
When the printer is in a normal state, the program will not be displayed.
When an error occurs, the window is automatically displayed, and the printer status can also be verified using the TM-C3400LT Utility.

NOTE	This utility is registered in Startup. <Storage location of the execution file> C:\Program Files\EPSON\TM-C3400-LT TOOL\TMC34LT_Mon.exe



Item	Description
Message	Displays the printer status. The scroll buttons on the right can be used to scroll the message.
Ink status	Displays the ink level.
Close	Closes the (Printer status) window. Hides the screen until the printer changes to another status that needs to be notified.

Message List

Type	Status	Message
Information	Power off processing	Processing power off. Please wait.
	Executing	Executing. Please wait.
	Printing the void image.	Missing dots are detected. Printing the void image.
	Printing the nozzle check pattern	Printing the nozzle check pattern. Please wait.
	Executing the head cleaning	Cleaning the print head. Please wait.
	Printing	Printing. Please wait.
	Mechanical adjestment is required soon	Mechanical adjustment inside the printer will be required soon. Please contact the store where you purchased the product or an Epson service center.
	Ink cartidge nearly empty	The time to replace the ink cartridge is close. Please prepare a new ink cartridge. Epson brand products are recommended.
	Ready to print	Ready to printer.
Error	Maintenance error	Mechanical adjustment inside the printer is required. Contact the store where you purchased the product or an Epson service center.
		Uncleanable clogged print head nozzles detected. Please turn the printer off. Contact the store where you purchased the product or an Epson service center.
		Communication with the printer failed. Please turn off the power and then turn it back on. If the same error occurs, contact the store where you purchased the product or an Epson service center.

Type	Status	Message
Error	Faital Error	Printer error. (xxx)* Please turn the printer off. Remove any foreign objects from inside the printer then turn the printer back on. If this is the first print job, please, check to make sure all packing materials and parts have been removed. *xx indicates the Fatal error code.
	Low temperature error	Low temperature error. The ambient temperature may be too low. Set the ambient temperature within 0°C {32°F} and 40°C {104°F}, turn off the printer and then turn it back on.
	High temperature error	High temperature error. The ambient temperature may be too high. Set the ambient temperature within 0°C {32°F} and 40°C {104°F}, turn off the printer and then turn it back on.
	Roll media cover open	Roll media cover open. Close the roll media cover.
	Ink cartidge cover open	Ink cartridge cover open. Close the ink cartridge cover.
	Media jam (roll media)	Media jam. Open the roll media cover and remove the jammed media, then close the roll media cover.
	Media jam (fanfold media)	Media jam. Open the roll media cover and remove the jammed media. Then close the roll media cover and reload the fanfold media.
	No ink charged	Install the ink cartridge for initial charging and load the roll media for initial setting included in the product package.
	Replace ink cartridge	Replace the ink cartridge. Epson brand products are recommended.
		Ink cartridge needs replacing, or cannot be recognized correctly. Replace the ink cartridge. Epson brand products are recommended.

Type	Status	Message
Error	Media remaining error	New media is loaded without removing the existing media. Remove the loaded new media once. Remove any media which is still in the printer and load the new media again.
	Out of media (roll media)	Media is not loaded. Please load the media.
	Out of media (fanfold media)	Media is not loaded. Remove any media which is still in the printer and load new media.
	Media position error	Loaded media does not match the specified setting. Set the correct media, or check the media layout settings or media position detection settings.
	Media size error	Driver media size does not match the media loaded. Modify the media size on the printer driver to match the loaded media.
	Media source error	Media source mismatch. Specify the correct media source.
Warning	Uncleanable clogged print head nozzles	Uncleanable clogged print head nozzles detected. The print result may be affected. Nozzle check operation is changed to ensure the reliability of the print result. The printer is searching clogged nozzles after printing each page; printing may take longer. You can continue printing, but contact the store where you purchased the product or an Epson service center as soon as possible.

Printer power and backlight brightness control

This is a tool that is registered in Startup and used.
When logging into a PC (in the default setting, automatic login as Administrator), the following is executed. In addition, when the PC is shut down, the power of the printer is turned off.

- Turns on the power of the printer
- The brightness value set in TM-C3400LT Utility is read and applied to the brightness of the display.

NOTE

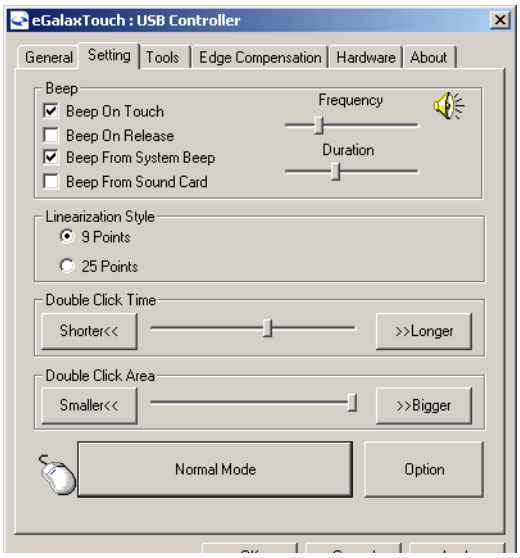
This utility is registered in Startup.
<Storage location of the execution file>
C:\Program Files\EPSON\TM-C3400-LT TOOL\TMC34LT_INIT.exe

Touch Panel Utility

This is a tool for setting the touch panel and beep sound, and for performing calibration.

Setting

This is for setting the touch panel settings.

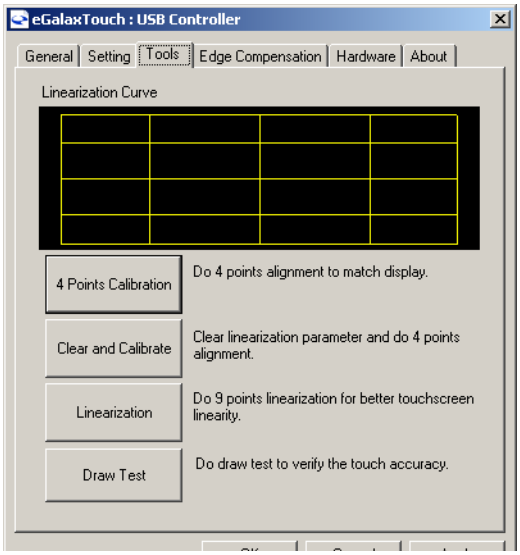


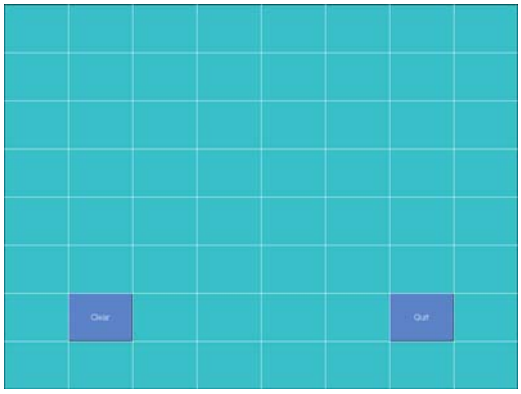
Item	Description
Beep	• Beep On Touch A beep sound is played when the touch panel is touched. • Beep On Release A beep sound is played when finger is removed from the touch panel. • Beep From System Beep The beep sound is played from the system speaker. • Beep From Sound Card The beep sound is played from the sound card. • Frequency Sets the frequency of the beep sound. • Duration Sets the duration of the beep sound.
Linearizatation Style	Sets the reference points for touch panel linearization. One of the following values can be selected. • 9 Points • 25 Points
Double Click Time	Sets the time between touches to be identified as a double-click.

Item	Description
Double Click Area	Sets the range of touches to be identified as a double-click.
Mode	Sets the touch settings. Select from the following: (Normal Mode), (Click On Touch), (Click On Release), (Click On Touch Without Moving Cursor), (Desktop Mode)
Option	• Enable Constant Touch Enables constant touch. • Enable Auto Right Click Enables auto right click. • Enable Touch Enables touch. • Enable Cursor Stabilization Enables cursor stabilization. • Constant Touch Area Specifies the range of the constant touch area. • Auto Right Click Time Specifies the touch duration to be identified as an auto right click.

Calibration

This is for performing touch panel calibration.



Item	Description
Linearizatation Curve	The currently set linearization curve is displayed.
4 Points Calibration	Calibration is performed based on 4 reference points. The linearization parameters are maintained.
Clear and Calibrate	The linearization parameters are cleared and a 4 points calibration is performed.
Linearizatation	To improve the linearity of the touch panel, linearization is performed using the reference points set in the (Setting) tab.
Draw Test	Perform a draw test to verify the accuracy of the touch panel.  Clear : Clears the test contents. Quit : Quits the draw test.

Setting the Printer Driver

How to Use the Printer Driver

The printer driver allows you to change the print settings and also provides some utilities such as checking the printer status and cleaning the print head.

How to Display the Printer Driver

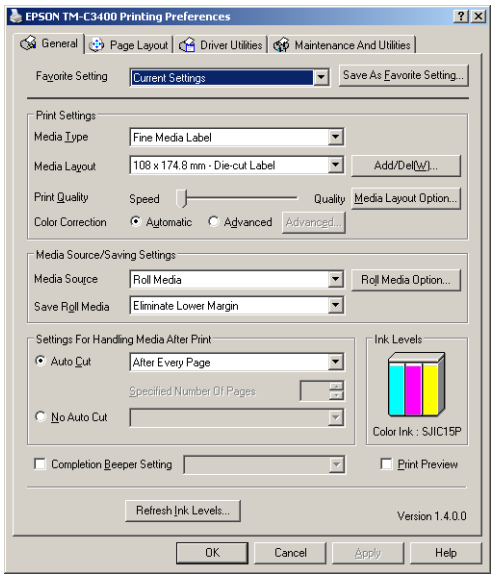
1 Click (Printers and Faxes).

Click (Printers and Faxes) on (Start) menu.

2 Right-click (EPSON TM-C3400), and click (Printing References).

The printer driver screen is displayed.

NOTE	This is displayed when the registered name of the printer is [EPSON TM-C3400].

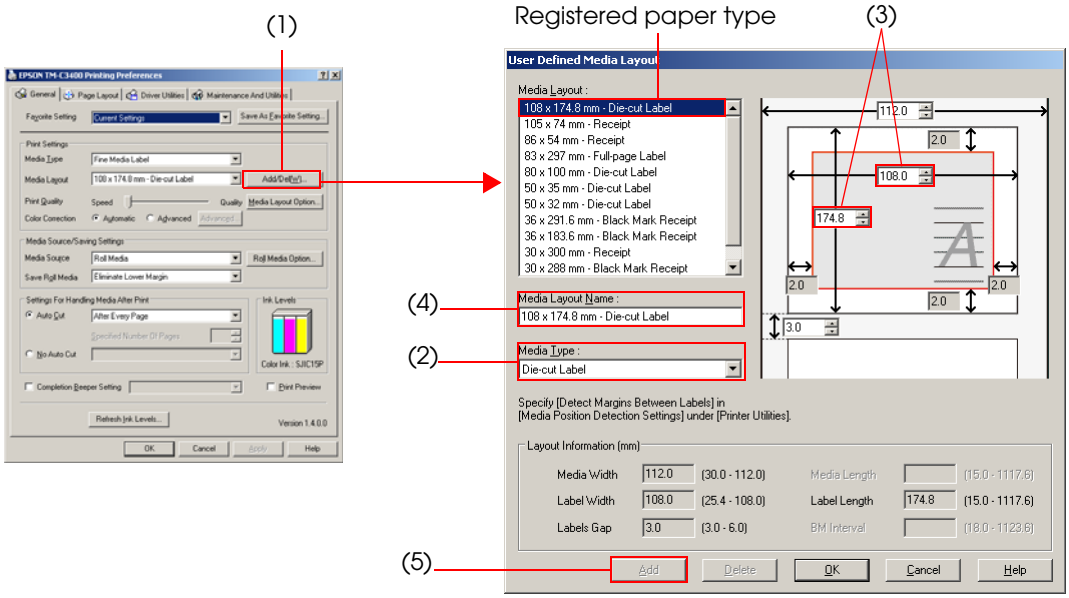


Registering User Defined Media

If the paper size to use is not in Media Layout, register the user defined media.
The registered layout will be stored in (Favorite Setting) to use from application of users.

Registering User Defined Media

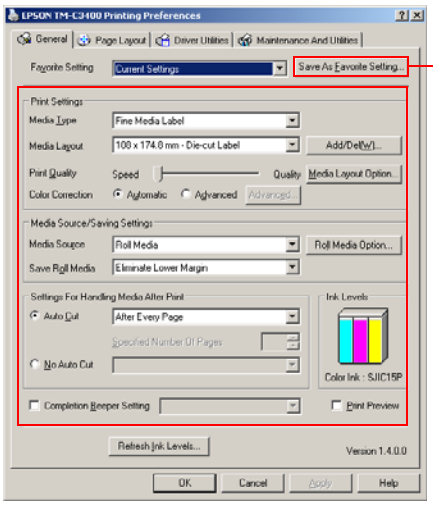
1. Click (Add/Del) of (Media Layout) on (Main) tab to display (User Defined Media Layout).
2. Select Media Type.
3. Enter the size of the paper.
4. Enter Media Layout Name. This is User Defined Media.
5. Click (Add). User Defined Media will be registered and displayed on the list of (Media Layout).


(1)
Registered paper type
(3)
User Defined Media Layout
Media Layout :
108 x 174.8 mm - Die-cut Label
105 x 74 mm - Receipt
86 x 54 mm - Receipt
83 x 297 mm - Full-page Label
80 x 100 mm - Die-cut Label
50 x 35 mm - Die-cut Label
50 x 32 mm - Die-cut Label
36 x 291.6 mm - Black Mark Receipt
36 x 183.6 mm - Black Mark Receipt
30 x 300 mm - Receipt
30 x 288 mm - Black Mark Receipt
(4)
Media Layout Name :
108 x 174.8 mm - Die-cut Label
(2)
Media Type :
Die-cut Label
Specify [Detect Margins Between Labels] in
[Media Position Detection Settings] under [Printer Utilities].
Layout Information (mm)
Media Width 112.0 (30.0 - 112.0)
Label Width 108.0 (25.4 - 108.0)
Labels Gap 3.0 (3.0 - 6.0)
Media Length
Label Length 174.8 (15.0 - 1117.6)
BM Interval
(5)
Add
Delete
OK
Cancel
Help

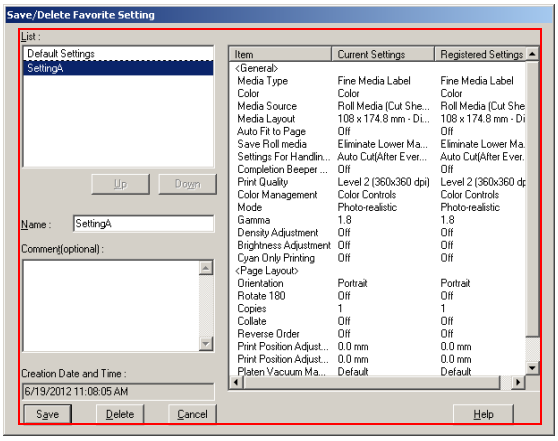
Favorite Setting

(Favorite Setting) is the function to administer print setting of the printer driver into one.
The setting from (Main) and (Page Layout) tab such as Media Type, Media Layout (including User Defined Media) are included.

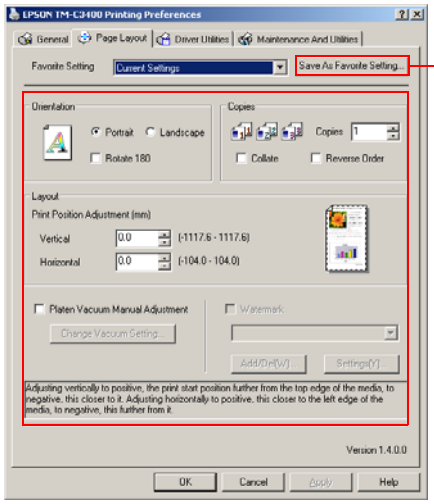
(Main) tab



Favorite Setting



(Page Layout) tab



Features

- When printing from application, the print setting registered on (Favorite Setting) can be selected as default setting.
  It is recommended to register the setting in favorite setting after executing print setting by clicking (Save As Favorite Setting).
- A number of setting can be registered on (Favorite Setting).
  For example, if the print setting is registered on (Favorite Setting) for each document, the print setting can be completed by changing (Favorite Setting) when the document is changed. This prevents an error of setting change when changing the paper.
  (It is necessary to change Media position detection of the printer when the document is changed. See "Setup" on page 35 for details.)

Registering print setting on (Favorite Setting)

1 Set the printer driver depending on paper to print.

Set settings on (Main) and (Page Layout) tab. Select from Media Layout when using User Defined Media.

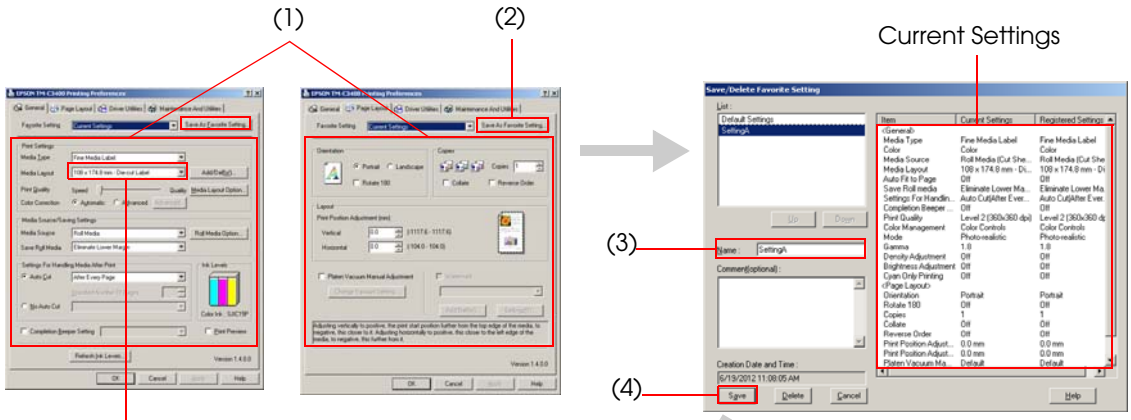
2 Click (Save As Favorite Setting) to display (Save/Delete Favorite Setting).

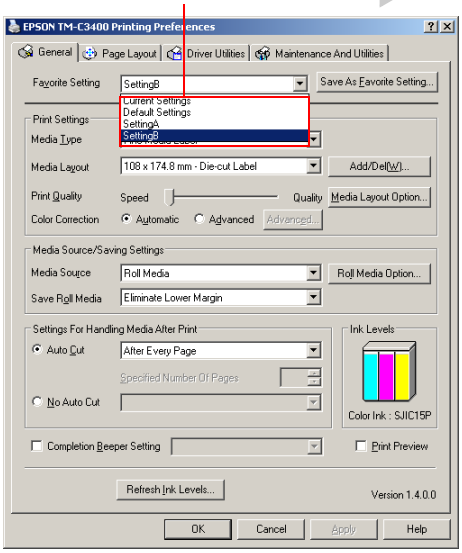
The current setting will be displayed on the list of the right side.

3 Enter print name.

4 Click (Add).

Print setting will be registered on (Favorite Setting).





(Favorite Setting) includes the following setting.

- Default Settings: The default setting when installing the printer driver.
- Current Settings: The contents set on (Main) and (Page Layout) tab. These contents are displayed in the current settings on (Current Setting) and (Save/Delete Favorite Setting) window.
- User Defined Setting: The print setting defined by the user.

Information for User Definition

The user definition includes the following.

- User Defined Media
- Registering barcode font
- Replacing font on .NET environment

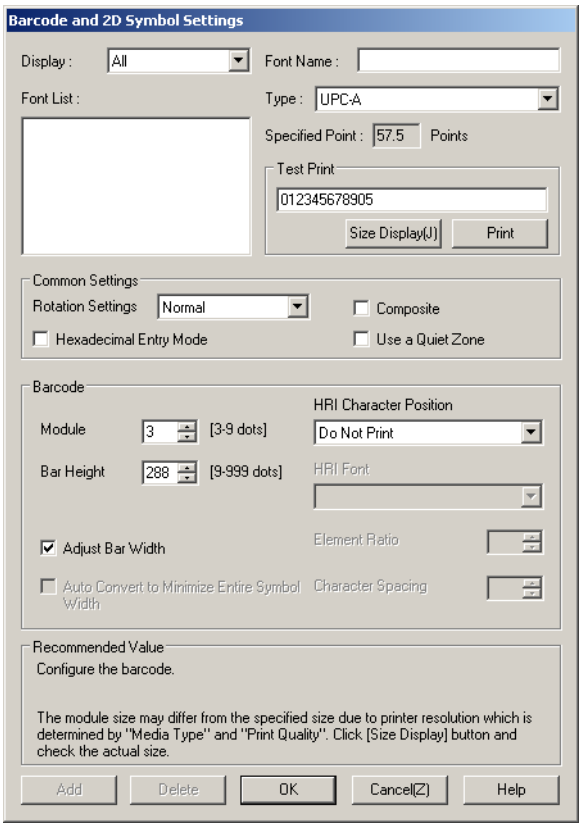
The user definition is set on each computer. When a number of TM-C3400 printer drivers are installed in one computer, these are used mutually.

Barcode Printing

The printer driver has the built-in barcode font. Barcode printing is available if the barcode is not created on the application side.

Setting the barcode font

Barcode print settings can be changed on (Barcode and 2D Symbol) on (Driver Utilities) tab.



1 Change settings of the following.

- Display: Select (Barcodes).
- Font Name: Input an arbitrary character string. ASCII characters only.

- Type: Select a barcode type from the following. The displayed items are changed accordingly.

UPC-A	UPC-E	JAN13(EAN)
JAN8(EAN)	Code39	ITF
Codabar	Code93	Code128
GS1-128M	GS1-128	GS1 DataBar Omnidirectional
GS1 DataBar Truncated	GS1 DataBar ExpandedM	GS1 DataBar Expanded
GS1 DataBar Limited		

- Rotation Settings: Select a setting when printing the barcode rotated by the specified rate.
- Hexadecimal Entry Mode: Turn on the check box when the data for barcode is specified on Hexadecimal Entry Mode.
- Composite: Turn on the check box to print barcode with a composite symbol.

NOTE

Separate the data specified to a composite symbol and a barcode with "\ |" or "| \". Describe the data in the order of the composite symbol and the barcode.
Example: 1234567890\ |012345678905

- Use a Quiet Zone: Leaves a blank margin around barcodes.

NOTE

The barcode printing position is moved based on the amount of margin.

- Module: Sets the thin element width in dots.

Symbol	Category	Print Quality	Rotation Settings (*1)	Adjust Bar Width	Upper Line: Minimum Module (by 360 dpi) Lower Line: Minimum Element Ratio		
					ANSI Grade D or higher	ANSI Grade C or higher	ANSI Grade B or higher
UPC-A UPC-E JAN13(EAN)	Plain Media, Plain Media Label	Speed	Normal, Rotate 180°	Available	4 dot 2.5	-	-
JAN8(EAN) Code39 ITF			Rotate 90°, Rotate 270°		6 dot 2.5	-	-
Codabar Code93 Code128		Quality	Normal, Rotate 180°		4 dot 2.5	-	-
GS1-128M GS1-128			Rotate 90°, Rotate 270°		6 dot 2.5	-	-
GS1 DataBar Omnidirectional	Fine Media, Fine Media Label, Synthetic Media Label, PET Film, Wrist Band	Speed	Normal, Rotate 180°		3 dot 2.5	4 dot 2.5	
GS1 DataBar Truncated			Rotate 90°, Rotate 270°		6 dot 2.5 (*2)	- (*2)	-
GS1 DataBar ExpandedM		Quality	Normal, Rotate 180°		3 dot 2.5	4 dot 2.5	
GS1 DataBar Expanded GS1 DataBar Limited			Rotate 90°, Rotate 270°		6 dot 2.5 (*2)	- (*2)	-

- : Not supported

*1 : The values for the Rotation Settings in the table are those when (Orientation) in (Page Layout) tab is se to "Portrait." When it is set to "Landscape," the description is changed as below.

"Normal, Rotate 180 Degrees" ➔ "Rotate 90 Degrees, Rotate 270 Degrees"

"Rotate 90 Degrees, Rotate 270 Degrees" ➔ "Normal, Rotate 180 Degrees"

*2 : By the combination of the specific paper type and the Symbol, the following conditions are available.

Wrist Band & Code128 : Element = 5 dots (D-grade)

Wrist Band & Codabar : Element = 5 dots,
Element ratio = 2.5 (C-grade)

CAUTION When "Module" is set to an odd number and the resolution is changed by changing [Category] or [Print Quality], the printed barcode size may be changed. The barcode size can be checked by [Size Display] button.

- Bar Height: Sets the element height with dots. Specified dots indicate the actual print size.
- Adjust Bar Width: Narrows the element width when printing. Make sure to select it only when the barcode is not clear enough to be read.
- HRI Character Position: Select the position of the HRI characters. Select (Do Not Print) when not printing.

NOTE The printing position is limited for some types.

- HRI Font: Select the HRI character font size.
- Element Ratio: Sets the thick element width by the ratio to the thin element width.
- Character Spacing: Sets the character spacing (interval) by the ratio to the thin element width.
- Auto Convert to Minimize Entire Symbol Width:
  Selectable when CODE128 is specified. This function minimizes the number of symbol characters required to express the given data string.

2 Click (Add).

The selected barcode font is saved and the font name is added to the font list.

NOTE

- The barcode font can be registered up to 30.
- The barcode font setting can be overwritten by clicking [Save] after selecting the font name from the font list and changing the setting.
- The barcode font setting can be deleted by clicking [Delete] after selecting the font name from the font list.
- Test print is executed according to the setting by clicking [Print] after inputting the text in the box.

Specifying the barcode data

Specify the barcode data by referring to the following descriptions.

About the composite symbol:

The composite component type is selected automatically depending on the digit number of the data. (CC-C is selected only when GS1-128 is set.)

Composite Component Type	Encodable Digit Number
CC-A	1 ~ 56 digits
CC-B	1 ~ 338 digits
CC-C	1 ~ 2361 digits

About the HRI character:

When the total width of the HRI character is larger than that of the barcode, the HRI character width is set as the barcode width.

UPC-A

❏ Normal

- Specify the data of 11 to 12 digits.
- The first digit is an unchecked number system character.
- For data of 11 digits, a check digit is automatically added.
- For data of 12 digits, the 12th digit is regarded as a check digit, but not proved.

❏ Composite (difference from Normal)

- For data of 12 digits, the 12th digit is ignored, and a check digit is automatically added.

UPC-E

❏ Normal

- Specify the data of 11 to 12 digits.
- For data of 6 digits, the specified data is not changed, and a check digit is automatically added.
- For data of 7 digits, the 2nd to 7th digits become the data characters, and a check digit is automatically added.
- For data of 8 digits, the 2nd to 7th digits become the data characters, and the 8th digit is regarded as a check digit, but not proved.
- For data of 11 digits, a check digit is automatically added.
- For data of 12 digits, the 12th digit is regarded as a check digit, but not proved.
- For data of 7 digits or more, specify "0" for the first digit, since it is regarded as a number system character.

❏ Composite (differences from Normal)

- For data of 8 digits, the 8th digit is ignored, and a check digit is automatically added.
- For data of 12 digits, the 12th digit is ignored, and a check digit is automatically added.

JAN13(EAN)

❏ Normal

- Specify the data of 11 to 12 digits.
- For data of 12 digits, a check digit is automatically added.
- For data of 13 digits, the 13th digit is regarded as a check digit, but not proved.

❏ Composite (difference from Normal)

- For data of 8 digits, the 8th digit is ignored, and a check digit is automatically added.

JAN8(EAN)

❏ Normal

- Specify the data of 7 to 8 digits.
- For data of 7 digits, a check digit is automatically added.
- For data of 8 digits, the 8th digit is regarded as a check digit, but not proved.

❏ Composite (difference from Normal)

- For data of 8 digits, the 8th digit is ignored, and a check digit is automatically added.

Code39

❏ A maximum of 256 digits can be specified.

❏ When both or either one of start/stop code (`*') is not specified, it is automatically added.

ITF

❏ A maximum of 256 digits can be specified.

❏ When data of odd digit number is specified, "0" is automatically added to the head.

Codabar

❏ A maximum of 256 digits can be specified.

❏ When the start code is not specified, 'A' is automatically added as a start code.

❏ When the stop code is not specified, the same value as a start code is added as a stop code.

❏ When the start/stop code is input in lower case letters, they are automatically converted into upper case letters.

Code93

- ❏ Specify the data of 1 to 255 digits.
- ❏ A start code, 2 check digits, stop code is automatically added.
- ❏ A character (□) that indicates a start code is printed for the head of the HRI character.
- ❏ A character (□) that indicates a stop code is printed for the end of the HRI character.
- ❏ HRI characters of the control characters (00h ~1Fh, 7Fh) are printed combining '■' and an alphabetical character.

Control Character		HRI Character	Control Character		HRI Character	Control Character		HRI Character
ASCII	Hexa-decimal		ASCII	Hexa-decimal		ASCII	Hexa-decimal	
NULL	00	■U	VT	0B	■K	SYN	16	■V
COH	01	■A	FF	0C	■L	ETB	17	■W
STX	02	■B	CR	0D	■M	CAN	18	■X
ETX	03	■C	SO	0E	■N	EM	19	■Y
EOT	04	■D	SI	0F	■O	SUB	1A	■Z
ENQ	05	■E	DLE	10	■P	ESC	1B	■A
ACK	06	■F	DC1	11	■Q	FS	1C	■B
BEL	07	■G	DC2	12	■R	GS	1D	■C
BS	08	■H	DC3	13	■S	RS	1E	■D
HT	09	■I	DC4	14	■T	US	1F	■E
LF	0A	■J	NAK	15	■U	DEL	7F	■F

Code128

- ❏ Specify the data of 2 to 255 digits.
- ❏ Specify either one of the code selection characters (CODE A, CODE B, CODE C) as a start code of the first 2 digits.
- ❏ A special character is indicated by combining `{` and the next character.
- ❏ When (Auto Convert to Minimize Entire Symbol Width) is checked, conversion is automatically performed so as to minimize the entire Code128 symbol width. With this function, there is no need to specify a code set; barcode printing can be performed simply by inputting data you want to convert into symbols.
  When (Auto Convert to Minimize Entire Symbol Width) is unchecked, a code set must be manually specified. When code set C is specified, assume a generated two-digit number as an ASCII character decimal number and specify the corresponding ASCII character.
  Example: 37": Specify as "%".
  "65": Specify as "A".
  "979899": Specify as "abc".
- ❏ When the character right after `{` is not any of the following, an error occurs.

Control Character	ASCII	Control Character	ASCII	Control Character	ASCII
SHIFT	{S	CODE C	{C	FNC3	{3
CODE A	{A	FNC1	{1	FNC4	{4
CODE B	{B	FNC2	{2	`{'	{{

- ❏ The HRI characters of the special character are described as below.

Control Character	HRI Character
SHIFT	Not printed
CODE A/B/C	Not printed
FNC1~ 4	Space is printed
Control character (00h ~1Fh, 7Fh)	Space is printed

GS1-128

- ❏ Specify the data of 2 to 255 digits.
- ❏ `()' is the delimiter for the application identifiers. (printed as the HRI character, but not encoded.)
- ❏ The start codes (CODE A, CODE B, CODE C) and the stop code are added automatically.
- ❏ A symbol character FNC1, that is described after the start code, is automatically added.
- ❏ When `*' is specified, a check digit is automatically calculated, and replaced with `*.'
- ❏ 2 digits of consecutive numbers must be specified as the application identifier. If it is not specified correctly, an error occurs.
- ❏ When `(01)' is specified as the application identifier, the 14th digit becomes a check digit, however, it is not proved when the check digit is specified. When the 14th digit is `*,' the check digit is automatically calculated, and replaced with `*.'
- ❏ A special character is indicated by combining `{` and the next character.
- ❏ When the character right after `{` is not any of the following, an error occurs.

Control Character	ASCII	HRI Character
Control Character (00h ~ 1Fh, 7Fh)		Space is printed.
FNC1	{1	Space is printed.
FNC3	{3	Space is printed.
`{'	{{	`{` is printed.
`('	{(	`(` is printed.
`)'	{)	`)` is printed.
`*'	{*	`*` is printed.
Left parenthesis for the application identifier	(	`(` is printed.
Right parenthesis for the application identifier	)	`)` is printed.
Check digit position	*	Check digit is printed.

GS1-128M

- ❏ Specify the data of 38 to 66 digits.
- ❏ `()' is the delimiter for the application identifiers. (printed as the HRI character, but not encoded.)
- ❏ The start codes (CODE A, CODE B, CODE C) and the stop code are added automatically.
- ❏ A symbol character FNC1, which is described after the start code, is automatically added.
- ❏ When FNC1 is not at the end of the data followed by the application identifier `(30)', FNC1 is automatically added.
- ❏ FNC1 must not be at the end of the data followed by the application identifier `(10)' or `(21)'. In this case, an error occurs.
- ❏ When `(01)' is specified as the application identifier, the 14th digit becomes a check digit, however, it is not proved when the check digit is specified. When the 14th digit is `*,' the check digit is automatically calculated, and replaced with `*.'
- ❏ When the character right after `{` is not `1', an error occurs.
- ❏ Specify the special character as the following format.

Control Character	ASCII	HRI Character
FNC1	{1	Space is printed.
Left parenthesis for the application identifier	(	'(` is printed.
Right parenthesis for the application identifier	)	`)' is printed.
Check digit position	*	Check digit is printed.

- ❏ An error occurs when the format identifiers do not meet the following condition.

Format Identifier	Format
01	Numbers of 14 digits
10	Alphanumerics of 1 ~ 20 digits
17	Numbers of 6 digits (YYMMDD)
21	Alphanumerics of 1 ~ 20 digits
30	Numbers of 1 ~ 8 digits

GS1 DataBar Omnidirectional/GS1 DataBar Truncated/GS1 DataBar Limited

- ❏ The first application identifier `01' is not included in the data.
- ❏ When printing the HRI characters, the first application identifier `01' is printed as `(01)' before the packing identification code.
- ❏ A check digit need not to be attached to the barcode data.
- ❏ When printing the HRI character, a check digit is printed after a product code.
- ❏ For GS1 Databar Limited, specify `0' or `1' for the first digit.

GS1 DataBar ExpandedM

- ❏ Specify the data of 38 to 66 digits that does not include `*'.
- ❏ `()' is the delimiter for the application identifiers. (printed as the HRI character, but not encoded.)
- ❏ When FNC1 is not at the end of the data followed by the application identifier `(10)' or `(21),' FNC1 is automatically added.
- ❏ When FNC1 is not at the end of the data followed by the application identifier `(30)', FNC1 is automatically added.
- ❏ FNC1 must not be at the end of the data followed by the application identifier `(10)' or `(21)'. In this case, an error occurs.
- ❏ When `(01)' is specified as the application identifier, the 14th digit becomes a check digit. When the check digit is not correct, an error occurs.
  (Unlike GS1-128, the check digit is not automatically calculated, nor replaced with `*.')
- ❏ '*' is skipped.
- ❏ When the character right after `{` is not `1,' an error occurs.
- ❏ Specify the special character using the following format.

Control Character	ASCII	HRI Character
FNC1	{1	Space is printed.
`('	{(	'(` is printed.
`)'	{)	`)' is printed.
Left parenthesis for the application identifier	(	'(` is printed.
Right parenthesis for the application identifier	)	`)' is printed.
`*'	{*	'*' is printed.
Skipped character	*	Not printed.

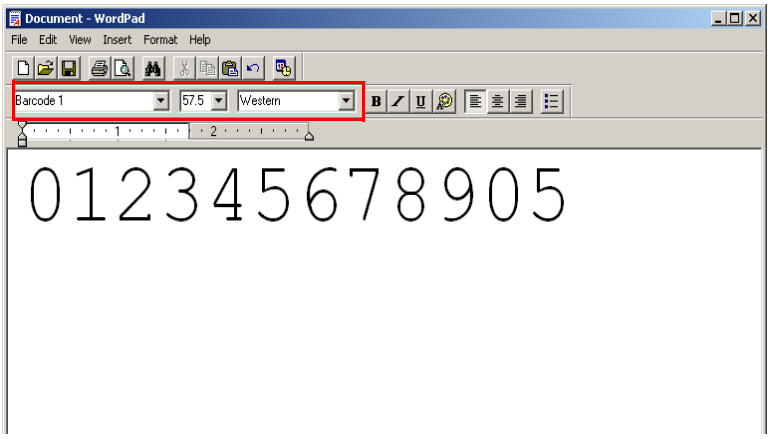
GS1 DataBar Expanded

- ❏ Specify the data of 2 to 255 digits.
- ❏ `()' is the delimiter for the application identifiers. (printed as the HRI character, but not encoded.)
- ❏ Be sure to include all the application identifiers in the data.
- ❏ When the first data is `01' after deleting application identifiers, left and right parenthesis, and `*' from the specified data, the 14th digit from the next of `01' is checked as a check digit. When it is not correct, an error occurs.
- ❏ When the next data of `01' is fewer than 14 digits, a check digit is not checked.
  (Unlike GS1-128, the check digit is not automatically calculated, nor replaced with `*.' When `*' is specified, `*' is ignored, and the rest of the data is shifted by 1 digit.)
- ❏ Specify the special character using the following format.

Control Character	ASCII	HRI Character
FNC1	{1	Space is printed.
Left parenthesis for the application identifier	(	'(` is printed.
Right parenthesis for the application identifier	)	`)' is printed.
`*'	{*	Error
Skipped character	*	Not printed.

Printing method

Specify the selected barcode font, specified point and language to the printing data, and then print it.



CAUTION

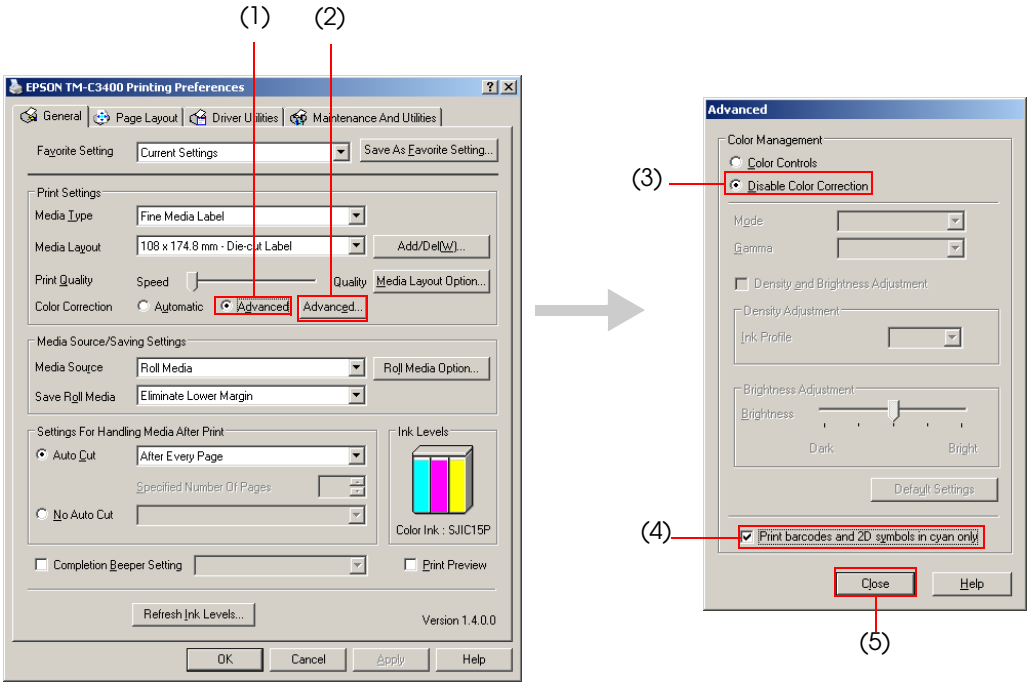
The font size of the barcode can not be changed by [Specified Point] value. The barcode is not printed when other values are selected.

Printing the barcode in cyan only

When the printed barcode is difficult to read, make settings to print it in cyan only.

> NOTE
>
> The barcode may not be read depending on your environment. Check it before using.

1. Select (Advanced) in (Print Settings)-(Color Corrections) in (General) tab.
2. Click the (Advanced) button.
3. "Advanced" screen is displayed.
4. Select (Disable Color Correction).
5. Check (Print barcodes and 2D symbols in cyan only).
6. Click the Close) button.

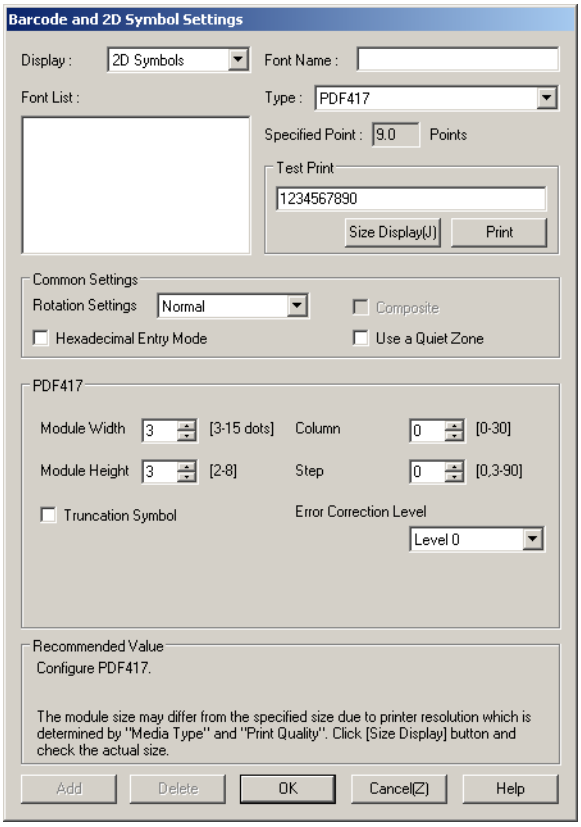


2D Symbol Font Settings

The printer driver has the built-in 2D symbol font. 2D symbol printing is available if the 2D symbol is not created on the application side.

Setting the 2D Symbol font

2D symbol printing settings can be changed on (Barcode and 2D Symbol) on (Driver Utilities) tab.



1 Change settings of the following.

- Display: Select (2D Symbols).
- Font Name: Input an arbitrary character string. ASCII characters only.
- Type: Select a 2D symbol type. The displayed items are changed accordingly.
- Rotation Settings: Select a setting when printing the 2D symbol rotated by the specified rate.
- Hexadecimal Entry Mode:

  Turn on the check box when the data for 2D symbol is specified on Hexadecimal Entry Mode.

- Composite: Turn on the check box to print the 2D symbol with a composite symbol.

> **NOTE**
> Separate the data specified to a composite symbol and a 2D symbol with "\ |" or "| \".
> Describe the data in the order of the composite symbol and the 2D symbol.
> Example: 1234567890\ |012345678905

- Use a Quiet Zone: Leaves a blank margin around 2D symbols.

> **NOTE**
> The 2D symbol printing position is moved based on the amount of margin.

2 Make settings of the following items according to the selected (Type).

- PDF417

Item	Description
Module Width	Makes settings of the module width for PDF417.
Module Height	Makes settings of the module height for PDF417 by the ratio to the module width.
Column	Input the number of columns for PDF417.
Step	Enter the number of steps for PDF417.
Truncation Symbol	Turn on this check box when making a symbol without the stop code.
Error Correction Level	Select an error correction level for PDF417. The data can be read even if the part of the symbol is broken, and restoration ratio becomes higher for bigger numbers.

- QRCode

Item	Description
Model	Select a QRCode model.
Module	Select the width of cell (module) for QRCode.
Version	Specify the version for QRCode. The number of characters that can be converted into 2D symbols is different depending on the version of QRCode.
Error Correction Level	Select an error correction level for QRCode. The data can be read if the part of the symbol is broken and restoration ratio becomes higher in the order of level L, M, Q, H.

- MaxiCode

Item	Description
Mode	Select a MaxiCode mode. Turn on the check box of (Hexadecimal Entry Mode) when selecting (Mode 2) or (Mode 3).

- GS1 DataBar

Item	Description
Module	Sets the module width for GS1 DataBar.
Num Of Chars	Sets the maximum width for GS1 DataBar.

- AztecCode

Item	Description
Type	Select a mode for AztecCode.
Number of Layers	Select the number of layers for AztecCode. (Minimize): Optimize the minimum number of layers automatically. (Specify the Size): Change the number of layers specified by the value in the input box.
Cell Size	Sets the cell (module) size for AztecCode.
Error Correction Area	Specify the error correction area of AztecCode using of either the following. The data can be read even if the part of the symbol is broken, and restoration ratio becomes higher for bigger numbers. (Default Value): Default value is 23%+3 code words. (Specify a Percentage): Specify the error correction area with a percentage value in the input box.

- DataMatrix

Item	Description
Cell Size	Makes settings of the cell (module) size for DataMatrix.
Number of Cells	Makes settings of the number of cells for DataMatrix. (Minimize): Optimize the minimum number of cells automatically. (Specify the Size): Change settings to the selected size.

- DataMatrix(Rectangle)

Item	Description
Cell Size	Makes settings of the cell (module) size for DataMatrix.
Number of Vertical Cells	Specify the number of cells for DataMatrix in the vertical direction.
Number of Horizontal Cells	Specify the number of cells for DataMatrix in the horizontal direction. (Minimize): Optimize the minimum number of cells automatically. (Specify the Size): Change settings to the selected size.

❏ The following table shows the recommended value for the 2D symbol module.

• Recommended value for setting the barcode/2D symbol font (2D symbol of stack type)

Symbol	Category	Print Quality	Print Status (*1)	Adjust Bar Width (*2)	Minimum Module (by 360 dpi)		
					ANSI Grade D or higher	ANSI Grade C or higher	ANSI Grade B or higher
PDF417 GS1 DataBar Stacked GS1 DataBar Stacked Omnidi-rectional GS1 DataBar Expanded Stacked	Plain Media, Plain Media Label	Speed	No Paper feed	3	6 dot	-	-
			With Paper feed		6 dot	-	-
		Quality	No Paper feed		6 dot	-	-
			With Paper feed		6 dot	-	-
	Fine Media, Fine Media Label, Synthetic Media Label, PET Film, Wrist Band	Speed	No Paper feed		4 dot	-	-
			With Paper feed		4 dot	- (*2)	-
		Quality	No Paper feed		4 dot	-	-
			With Paper feed		4 dot	- (*2)	-

- : Not supported.

*1 : Whether paper feed is performed during printing 2D symbol can be checked in (Display Media Feed Position) - (Display Print Preview) in the Print Preview function. For this function, see "Print Preview" on page 94.

*2: Specify when using PDF417.

- Recommended value for setting the barcode/2D symbol font (2D symbol of matrix type)

Symbol	Category	Print Quality	Print Status (*1)	Minimum Cell Size (by 360 dpi)		
				ANSI Grade D or higher	ANSI Grade C or higher	ANSI Grade B or higher
AztecCode QRCode	Plain Media, Plain Media Label	Speed	No Paper feed	6 dot	-	-
			With Paper feed	8 dot	-	-
		Quality	No Paper feed	6 dot	-	-
			With Paper feed	8 dot	-	-
	Fine Media, Fine Media Label, Synthetic Media Label, PET Film, Wrist Band	Speed	No Paper feed	5 dot	6 dot (*2)	
			With Paper feed	6 dot	7 dot	-
		Quality	No Paper feed	5 dot	6 dot (*2)	
			With Paper feed	6 dot	7 dot	-

- - : Not supported.
- *1 : Whether paper feed is performed during printing 2D symbol can be checked in (Display Media Feed Position) - (Display Print Preview) in the Print Preview function. For this function, see "Print Preview" on page 94.
- *2: Only QRCode is confirmed.

3 Click (Add).

The selected 2D symbol font is saved and the font name is added to the font list.

NOTE

- The 2D symbol font can be registered up to 30.
- The 2D symbol font setting can be overwritten by clicking [Save] after selecting the font name from the font list and changing the setting.
- The 2D symbol font setting can be deleted by clicking [Delete] after selecting the font name from the font list.
- Test print is executed according to the setting by clicking [Print] after inputting the text in the box.

Specifying the 2D symbol data

See the following description to specify the 2D symbol data.

> NOTE For the composite symbol and the HRI character, see "Specifying the barcode data" on page 75.

PDF417

- ❏ Calculated automatically when the digit number and the line number are 0.
- ❏ To specify other number than 0, make sure the multiplication of the digit number and the line number is under 928.

QRCode

- ❏ Size is determined by the specified version. If it does not fit in the specified version, it is changed automatically to the appropriate version.

MaxiCode

- ❏ For Mode2 and Mode3, the header and the second message are omissible.
- ❏ Specify the special character as the following format.

Control Character	Hexadecimal
SHIFT	0x7B, 0x53
CODE B	0x7B, 0x42
CODE C	0x7B, 0x43
FNC1	0x7B, 0x31
FNC2	0x7B, 0x32
FNC3	0x7B, 0x33
FNC4	0x7B, 0x34

GS1 DataBar Stacked /GS1 DataBar Stacked Omnidirectional

- ❏ Up to 13 digits of data can be specified.
- ❏ Do not specify the application identifier '01' for the head of the data.
- ❏ A check digit need not to be attached to the data.

GS1 DataBar Expanded Stacked

- ❏ Multiple line symbol version of GS1 Databar Expanded. How to specify the data is the same as GS1 Databar Expanded. (For details, see "GS1 DataBar Expanded" on page 82.)

AztecCode

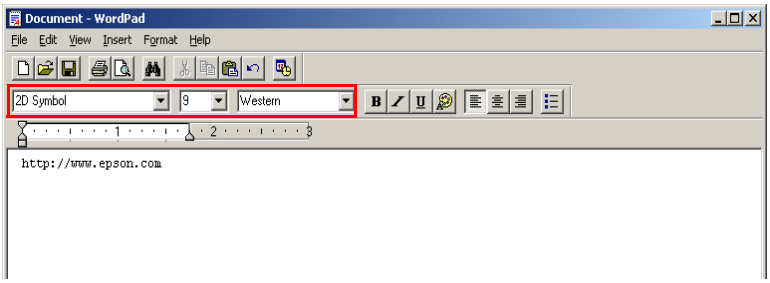
❏ Supports the full range mode and the compact mode.

DataMatrix

❏ Supports the ECC200 versions - square and rectangular.

Printing method

Specify the selected 2D symbol font, specified point and language to the printing data, and print it.



CAUTION	The font size of the 2D symbol can not be changed by [Specified Point] value. The 2D symbol is not printed when other values are selected.

Printing the 2D symbol in cyan only

When the printed 2D symbol is difficult to read, make settings to print it in cyan only.
For details, see "Printing the barcode in cyan only" on page 83.

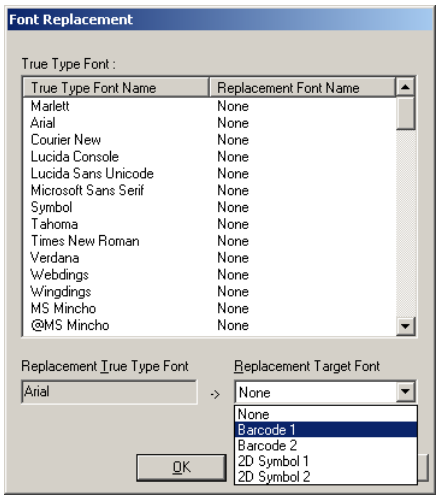
Barcode and 2D Symbol Font Printing on .NET Environment

Since .NET Framework supports only True Type font and Open Type font, the barcode and 2D symbol font which are registered in the printer driver can not be printed from the application. Therefore, True Type font is replaced with barcode and 2D symbol font by using font replacement function of the printer driver. Barcode and 2D symbol fonts can be printed from the application under .NET Framework environment by this replacement function.

The name of the print data in the application remains as True Type font name, but changes to barcode and 2D symbol font when it is printed.

Font Replacement

Font Replacement is executed from (Font Replacement) on (Driver Utilities) tab.



1 Make the following setting.

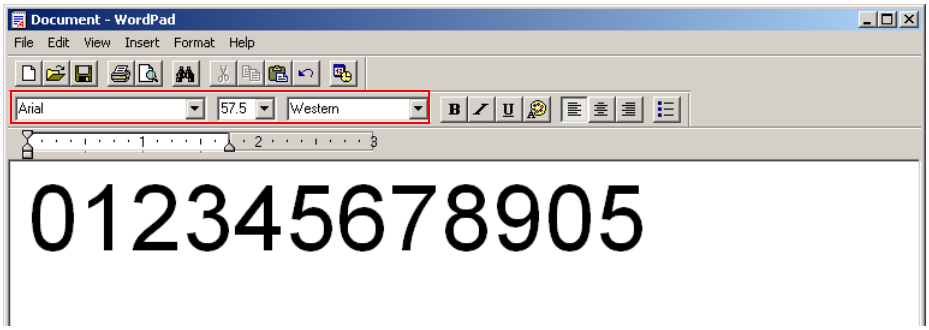
- True Type font to be replaced
  - ∗ Select [True Type Font].
- Font to replace
  - ∗ Select barcode and 2D symbol font to replace.

2 Click (OK).

True Type font is replaced by barcode and 2D symbol font.

Printing barcode and 2D symbol

Sets specified number of point, language of the replaced True Type font by barcode and 2D symbol font to the print data.



NOTE

- The number of point for barcode and 2D symbol is specified, check it from [Barcode and 2D Symbol] on [Driver Utilities]. The barcode and 2D symbol can not be printed if a value other than those specified is set.
- The replaced True Type font can be used only for specifying barcode and 2D symbol, therefore, if the character other than specified is used can not be printed. Make sure to use True Type font that is not be used for other printing.

Functions of the Printer Driver

The printer driver has "Main", "Page Layout", "Driver Utilities" and "Maintenance And Utilities" tabs to change various settings and for adjustments.

(Main) tab

Favorite

Selects one of the registered print settings from the list. This is the default setting when printing. Changes to setting when installing the printer driver if (Initial setting) is selected.

Print Settings

Makes setting of Media Type, Media Layout, Print Quality and Color Crrection.

The user definition paper can be registered in Media Layout.

Select print quality from (Speed) (Quality) and the following is the resolution of the printing.

Paper type	Print Quality	Resolution (dpi) (Horizontal × vertical)
Plain Media Plain Media Label	Speed	360 × 180
	Quality	360 × 360
Other papers	Speed	360 × 360
	Quality	720 × 360

Paper Source/Saving Settings

Changes settings of Paper Source, Save Roll or Roll Paper Option setting.

Settings For Handling Paper After Print

Changes settings of auto-cut and paper feed setting after printing.

Makes settings of auto-cut and paper feed setting after printing when it is necessary. The check box is grayed out when it is not necessary (such as auto-cut for Receipt/Full-page Label).

Completion Beeper Setting

Changes settings of the buzzer setting after printing.

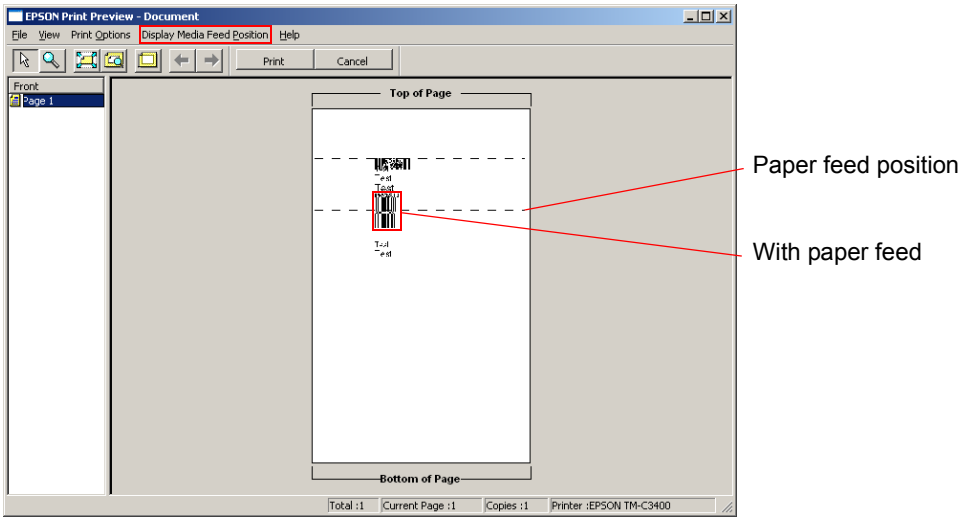
Ink Levels

Displays the remaining ink levels.

Print Preview

If this function is checked, the print preview window is displayed when printing is performed from an application, allowing you to check the print result image before printing.
Displays the print preview before printing if this check box is turned on.

> **NOTE** To improve 2D symbol scanning accuracy, we recommend no paper feed during 2D symbol printing.



The following items can be set in (Display Media Feed Position).

Setting		Specification
Display Media Feed Position	Display Print Preview	Displays the media feed position on the print preview window. The default is set as “Display”.
	Print Media Feed Position	Prints the media feed position. The default setting is set as "Not print".

(Page Layout) tab

Favorite

Selects one of the registered print settings from the list. This is the default setting when printing. Changes to setting when installing the printer driver if (Initial setting) is selected.

Orientation

Changes settings of the printing direction (Portrait, Landscape, Rotate 180, Horizontal Flip).

Copies

Sets the number of prints.

Layout

Adjusts the printing position.

> **NOTE** This is the adjustment for each printing job and different from [Print Start Position Adjustment] on [Maintenance And Utilities] tab. According to the paper specification (such as the color of black mark is light, etc.), this adjustment should be performed.

Platen Vacuum Manual Adjustment

When this is checked, (Change Vacuum Setting) becomes active. Clicking (Change Vacuum Setting) displays the (Platen Vacuum Manual Adjustment) screen to adjust the platen vacuum power. When it is unchecked, the default value of the vacuum power is set. In this case, it is not necessary for the user to make this adjustment since this is adjusted in the factory before shipping.

Watermark

By turning on this check box, the text or the graphics such as "Important" as a watermark is printed.

> **NOTE** The button is grayed out when [Save Roll] on [Main] tab is not set to "No Saving".

> **CAUTION** Since the watermark is printed in front of the printed data, a barcode cannot be read when the barcode and the watermark overlap each other.

(Driver Utilities) tab

Barcode and 2D Symbol

Changes various settings of barcode fonts and 2D symbol fonts. This is user definition information.

> NOTE
>
> See "Barcode Printing" on page 71, "2D Symbol Font Settings" on page 84 for the procedure of each printing.

Font Replacement

Makes settings to replace True Type font to barcode and 2D symbol font under .NET environment.

> NOTE
>
> Use this to print the barcode and 2D symbol font on .NET environment. One of True Type font is specified to use printing barcode and 2D symbol font.

Driver Preferences

Changes settings for various functions related to the printer driver (print speed or status).

EPSON Log File Settings

Changes settings for the saving method for quick analysis when the error occurs.

EPSON Status Monitor 3

The EPSON Status Monitor 3 window is displayed and the current printer status, ink level and error status can be checked.

> NOTE
>
> Not displayed when [Use EPSON Status Monitor 3] on the [Driver Preferences] window is unchecked.

Monitoring Settings

Displays EPSON Status Monitor 3 when an error occurs.

> NOTE
>
> Not displayed when [Use EPSON Status Monitor 3] on the [Driver Preferences] window is unchecked.

Notification Settings for Fatal Errors

Even when EPSON Status Monitor 3 is not being used, when a fatal error occurs in the printer, an error window can be displayed.

> NOTE
>
> - Not displayed when [Use EPSON Status Monitor 3] on the [Driver Preferences] window is unchecked.
> - “An administrator, a member of Administrator Group, a user with raised privilege, and a member of Windows XP Power User Group” can change the notification settings for fatal errors.

Import/Export Settings

Imports or exports all the settings on the printer driver as a file.

(Maintenance And Utilities) tab

Make the following settings to the printer.

Post-Printing Verification Settings

Changes settings of operation, registration of invalid images to the documents, test printing of invalid images at missing dots.

Following are the modes for operation setting when Post-Printing Verification Settings.

- Anti-missing Color Mode: Executes cleaning when two or more dots are missing side by side in the paper feed direction, or three or more dots are missing arbitrarily.
- Anti-missing Read Mode: Executes a head cleaning when any dot is missing.
- High Reliability Mode (Reprint) / Economy Mode for Low Print Volume (Reprint): When dot missing occurs, the EPSON Status Monitor 3 is displayed. Select the next operation from (Restart printing) (printing the next data) and (Reprint) (reprinting after dot missing is resolved by the auto head cleaning.)
- High Reliability Mode (Void Image Reprint) / Economy Mode for Low Print Volume (Void Image Print): Prints the image that indicates dot missing and reprints the same data when any dot is missing. Cuts and prints the top of the void images if the paper height is less than one inch.

NOTE

- The button for [High reliability mode (Void Image Test Print)] or [Economy Mode for Low Print Volume (Void Image Print)] on [Driver Preferences] is grayed out when [Use EPSON Status Monitor 3] on [Driver Preferences] of [Driver Utilities] is not selected.
- The dots may be missing due to mis-reading when “Anti-missing Color Mode” is selected. It is recommended to use “Anti-missing Read Mode” or “High Reliability Mode” to avoid such dot missing from mis-reading.

Notification Settings

Makes settings of the buzzer on/off, the printer status utility notification at the ink low status and the paper type error notification when such error occurs.

Panel Button Settings

Among the panel buttons on the printer, enable/disable the FEED button and the CUT button.

Media position detection

Changes the media position detection setting based on the type of paper.

CAUTION

The paper error occurs when the printer setting is not matched with the paper type and printing can not be performed. See "Replacing the Paper" on page 139 for details about this adjustment.

Media Loading Settings

Changes settings of the paper set operation and auto-cut function when powering on and closing the cover.

Sensor Adjustment

The threshold for the sensor can be adjusted when the sensor does not detect the label gap and black mark for the paper to be used.

Manual Head Cleaning

Head cleaning can be performed. The result of the head cleaning can be checked by the nozzle check pattern printing.

> NOTE
>
> See "Manual Head Cleaning" on page 163 for the operating procedure of the Manual head cleaning.

Nozzle Check

Prints a nozzle check pattern to check if any nozzle is clogged or not.

Media Feed Position Adjustment

Performs the paper feed adjustment for the cut position and the print position. Make this adjustment when the cut/print position is not aligned.

Print Head Alignment

Adjusts misalignment of vertical lines, barcodes and paper feed during bi-directional printing.
This is to check the adjustment value by using Die-cut Label Roll paper included in the product package. It is not necessary for the user to make this adjustment since this is adjusted in the factory before shipping.

Print Reference Adjustment

Adjust the top of form position and print start position by using the roll paper included in the product package. Normally it is not necessary for the user to make this adjustment since this is adjusted in the factory before shipping.

Operating Time Settings

Set the time to wait for data, or platen vacuum operation to pause.

Setting the Printer Driver

The following functions can be set on the printer driver.

Printer setting

- Post-Printing Verification Settings
- Notification Settings
- Media Loading Settings
- Media Position Detection
- Panel Button Settings
- Sensor Adjustment

Driver setting

- Setting for EPSON Status Monitor 3
- Settings For Handling Media After Print

Post-Printing Verification Settings

The following are the modes when Post-Printing Verification Settings. ((Anti-missing Read Mode) is set as a default setting. The user does not need to change the setting when using in the default setting.)

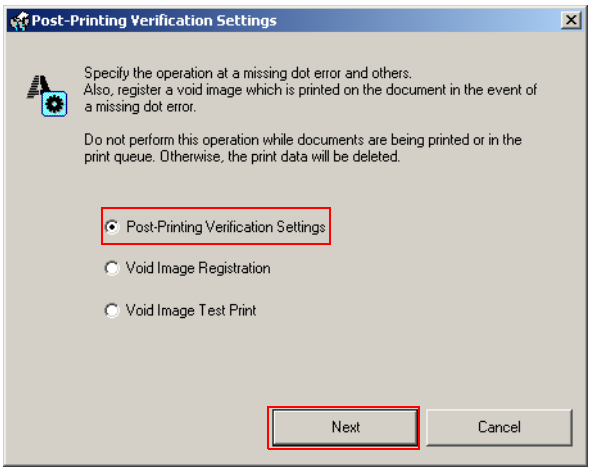
- High Reliability Mode (Void Image Print)
- High Reliability Mode (Reprint)
- Economy Mode for Low Print Volume (Void Image Print)
- Economy Mode for Low Print Volume (Reprint)
- Anti-missing Read Mode
- Anti-missing Color Mode

(See "Post-Printing Verification Settings" on page 19 for details of each mode.)

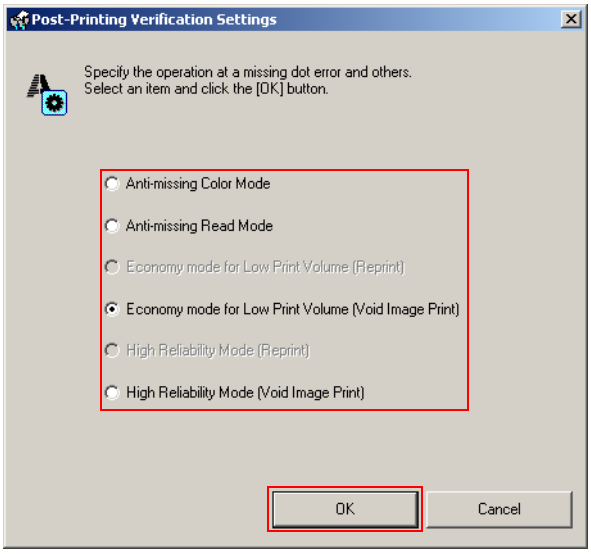
Setting the mode

1. Turn the printer on.
2. Display the printer driver window.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)
3. Select (Maintenance And Utilities) tab and click (Post-Printing Verification Settings).

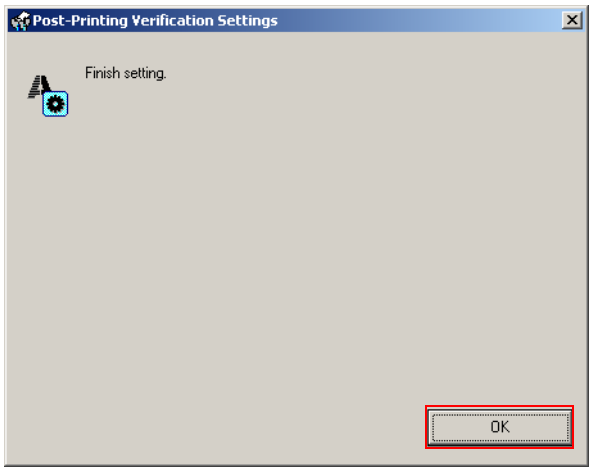
4 The (Post-Printing Verification Settings) window is displayed. Select (Post-Printing Verification Settings) and click (Next).


Post-Printing Verification Settings
Specify the operation at a missing dot error and others.
Also, register a void image which is printed on the document in the event of a missing dot error.
Do not perform this operation while documents are being printed or in the print queue. Otherwise, the print data will be deleted.
Post-Printing Verification Settings
Void Image Registration
Void Image Test Print
Next
Cancel

5 Select the setting mode. After selecting the mode, click (OK).


Post-Printing Verification Settings
Specify the operation at a missing dot error and others.
Select an item and click the [OK] button.
Anti-missing Color Mode
Anti-missing Read Mode
Economy mode for Low Print Volume (Reprint)
Economy mode for Low Print Volume (Void Image Print)
High Reliability Mode (Reprint)
High Reliability Mode (Void Image Print)
OK
Cancel

6 Setting is completed. Click (OK) to finish.



Void image registration

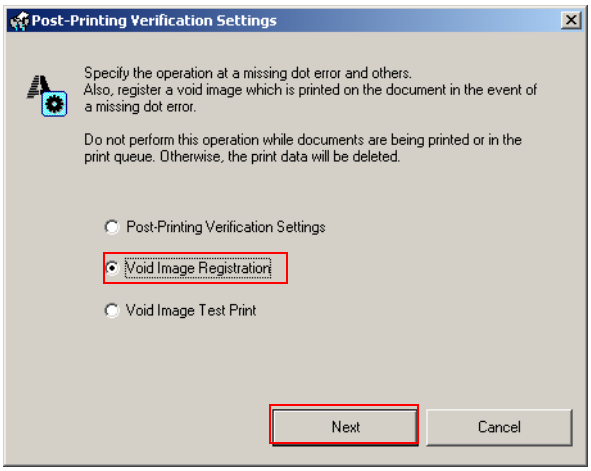
Specifies the print image on High Reliability Mode (Void Image Print) or Economy Mode for Low Print Volume (Void Image Print) when dots are missing. The default void printing is all-in-black printing with height of 25.4 mm and user can change this to another image file.

1 Turn the printer on.

2 Display the printer driver window.
(See "How to Use the Printer Driver" on page 65 for how to display the driver window.)

3 Select the (Maintenance And Utilities) tab and click (Post-Printing Verification Settings).

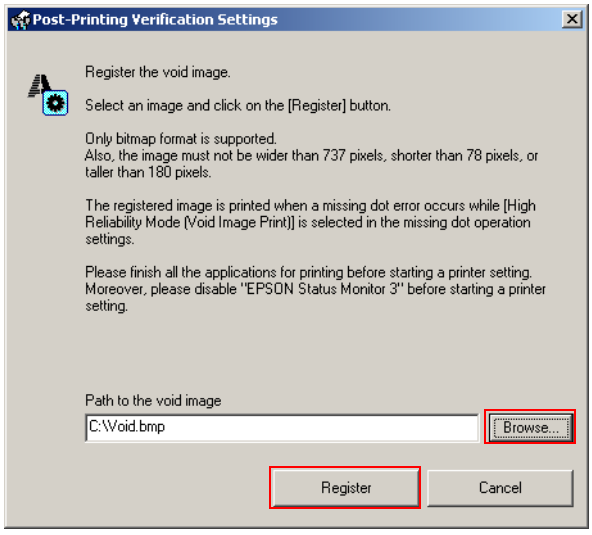
4 The (Post-Printing Verification Settings) window is displayed. Select (Void Image Registration) and click (Next).


Post-Printing Verification Settings
Specify the operation at a missing dot error and others.
Also, register a void image which is printed on the document in the event of a missing dot error.
Do not perform this operation while documents are being printed or in the print queue. Otherwise, the print data will be deleted.
Post-Printing Verification Settings
Void Image Registration
Void Image Test Print
Next
Cancel

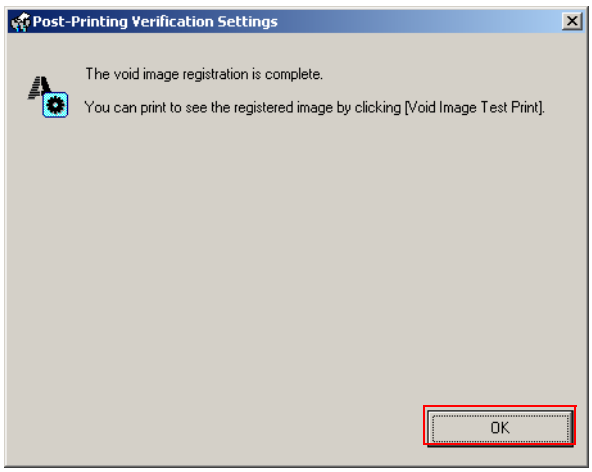
5 Click (Browse) to select the image to print. Click (Register) to register the image to print.

Click (Cancel) to terminate without performing the (Void Image Registration).

> **CAUTION** A bitmap image of 737 pixel width and 78 pixel to 180 pixel height can be registered as a void image.


Post-Printing Verification Settings
Register the void image.
Select an image and click on the [Register] button.
Only bitmap format is supported.
Also, the image must not be wider than 737 pixels, shorter than 78 pixels, or taller than 180 pixels.
The registered image is printed when a missing dot error occurs while [High Reliability Mode (Void Image Print)] is selected in the missing dot operation settings.
Please finish all the applications for printing before starting a printer setting. Moreover, please disable "EPSON Status Monitor 3" before starting a printer setting.
Path to the void image
C:\Void.bmp
Browse...
Register
Cancel

6 The void image registration is completed. Click (OK).


Post-Printing Verification Settings
The void image registration is complete.
You can print to see the registered image by clicking [Void Image Test Print].
OK

Void image test print

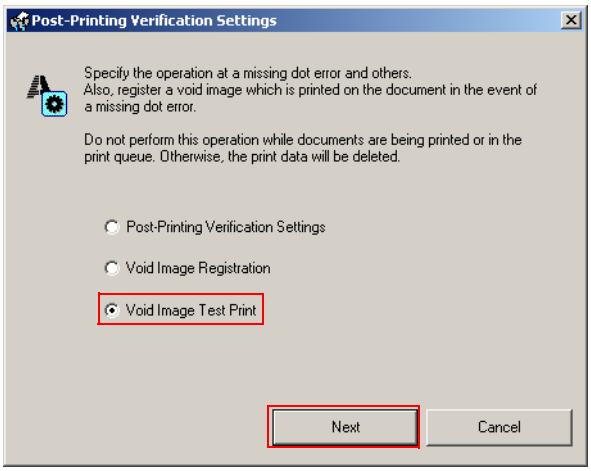
Perform a test print of the image to print when dot missing occurs in the High Reliability Mode (Void Image Print) or Economy Mode for Low Print Volume (Void Image Print).

1 Turn the printer on.

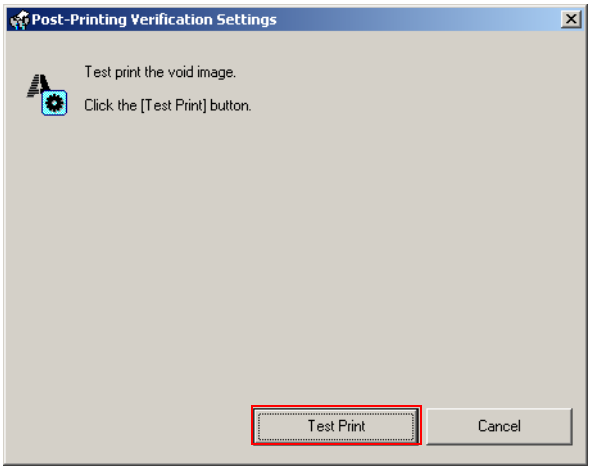
2 Display the printer driver window.
(See "How to Use the Printer Driver" on page 65 for how to display the driver window.)

3 Select the (Maintenance And Utilities) tab and click (Post-Printing Verification Settings).

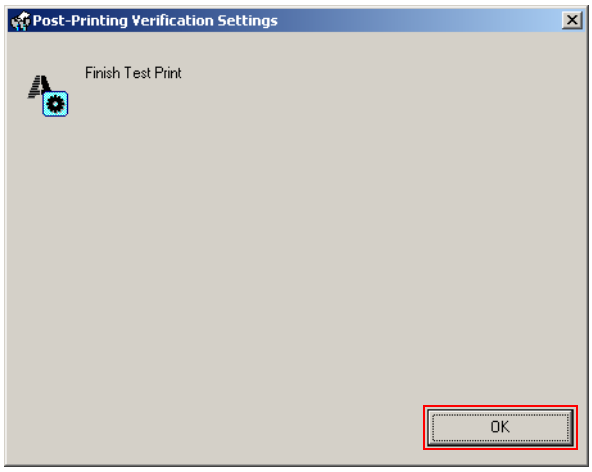
4 Select (Void Image Test Print) and click (Next).


Post-Printing Verification Settings
Specify the operation at a missing dot error and others.
Also, register a void image which is printed on the document in the event of a missing dot error.
Do not perform this operation while documents are being printed or in the print queue. Otherwise, the print data will be deleted.
Post-Printing Verification Settings
Void Image Registration
Void Image Test Print
Next
Cancel

5 Click (Test Print) to start test print.
Click (Cancel) to terminate without performing test print.



6 Click (OK) to finish the test print.



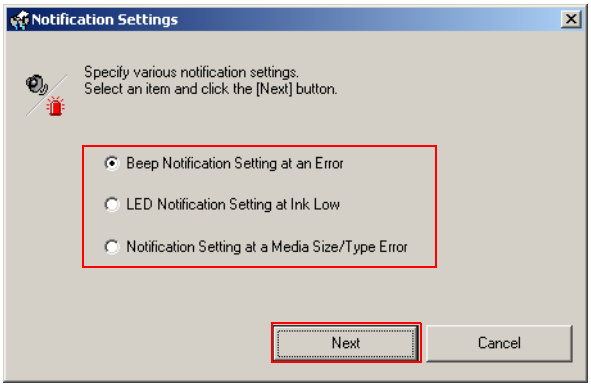
Notification Settings

Sets following notification setting.

Setting	Description
Beep Notification Setting at an Error	Selects beep notification (sounds buzzer or not) when error occurs. (Default setting is (Beep). The user does not need to change when using with default setting.)
LED Notification Setting at Ink Low	Not Supported.
Notification Setting at a Paper Size/Type Error	Selects notification setting at a paper size or type error. Display the printer status utility when detecting an error, and notifies error if EPSON Status Monitor 3 is in active. (Default setting is (No Error Notification). The user does not need to change when using with default setting.)

Follow the steps below to set the notification setting.

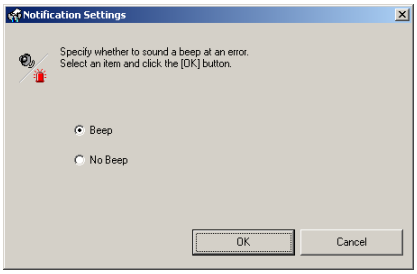
1. Turn the printer on.
2. Display the printer driver window.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)
3. Select (Maintenance And Utilities) tab and click (Notification Settings).
4. The (Notification Settings) window is displayed. Select an item to set and click (Next).


Notification Settings
Specify various notification settings.
Select an item and click the [Next] button.
Beep Notification Setting at an Error
LED Notification Setting at Ink Low
Notification Setting at a Media Size/Type Error
Next
Cancel

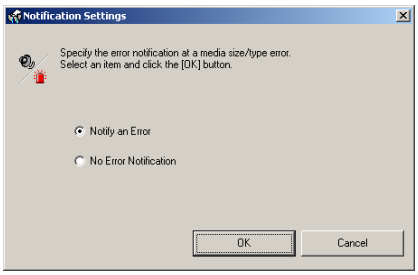
5 Select notification setting, and click (OK).

Click (Cancel) to terminate without performing the (Notification Settings).

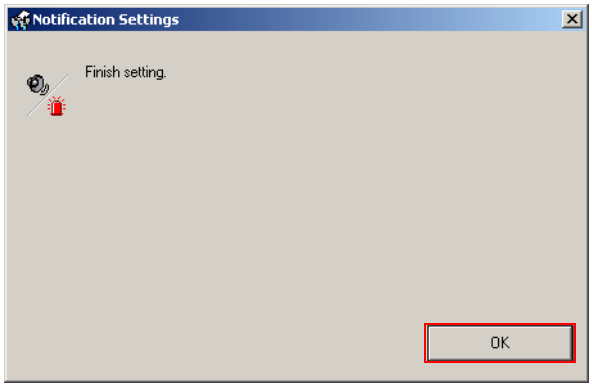
Beep Notification Setting an Error



Notification Setting at a Paper Size/Type Error



6 Setting is completed. Click (OK) to finish.



Media Loading Settings

Sets paper feed movement to the print starting position when turning the printer power on or the roll paper cover is closed.
The following is the movements to feed the paper to the print starting position when turning the printer power on or the roll paper cover is closed. (Default setting is (Media Loading Method (with Cutting)). The user does not need to set when using with default setting.)

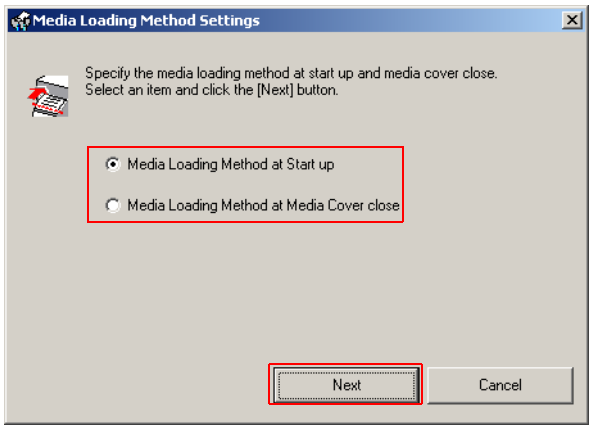
Setting	Specification	Power ON	Roll paper cover close
Media Loading Method (with Cutting)	When either black mark detection or detection of gaps between labels is set for media position detection, the top of black mark or the top of label is detected by the black mark detector or the label detector at the power-on, and the paper is fed to the print starting position. When no position is detected, the specified amount of paper is fed. After paper feeding, the printer enters the stand-by mode with performing autocutting.	√	√
Media Loading Method (without Cutting)	When either black mark detection or detection of gaps between labels is set for media position detection, the top of black mark or the top of label is detected by the black mark detector or the label detector at the power-on, and the paper is fed to the print starting position. When no position is detected, the specified amount of paper is fed. After paper feeding, the printer enters the stand-by mode without performing autocutting.	√	√
No Media Loading Method	The printer does not feed the paper to the print starting position at power-on.	√	-

1 Turn the printer on.

2 Display the printer driver window.
(See "How to Use the Printer Driver" on page 65 for how to display the driver window.)

3 Select (Maintenance And Utilities) tab, and click (Media Loading Settings).

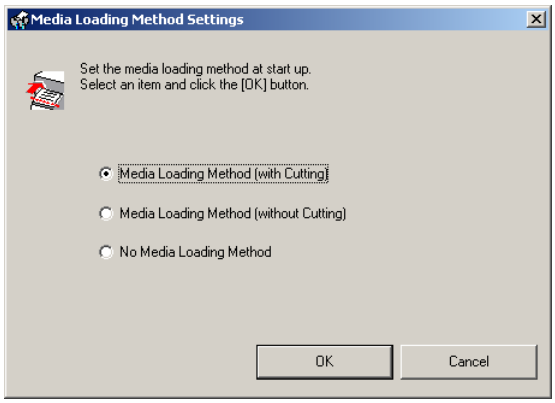
4 The (Media Loading Method Settings) window is displayed. Select your choice and click (Next).


Media Loading Method Settings
Specify the media loading method at start up and media cover close.
Select an item and click the [Next] button.
Media Loading Method at Start up
Media Loading Method at Media Cover close
Next
Cancel

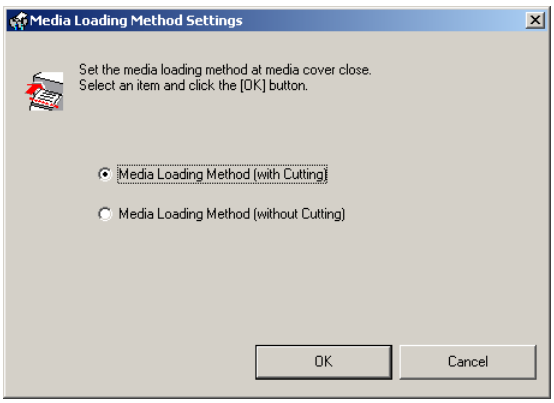
5 Sets paper feed to the print starting position and click (OK).

Click (Cancel) to terminate without performing the (Media Loading Method Settings).

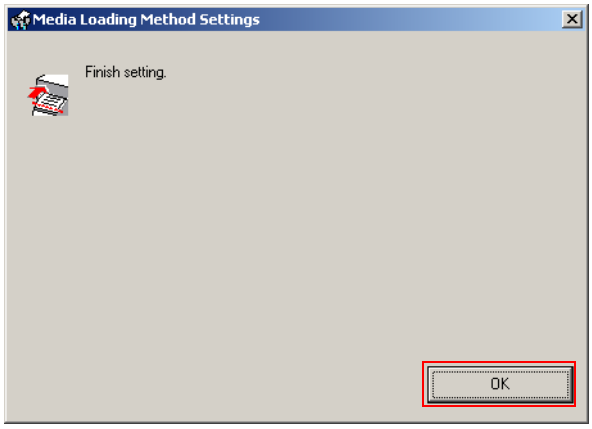
Paper Set Operation at the Start up


Media Loading Method Settings
Set the media loading method at start up.
Select an item and click the [OK] button.
Media Loading Method (with Cutting)
Media Loading Method (without Cutting)
No Media Loading Method
OK
Cancel

Paper Set Operation at the Paper Cover close


Media Loading Method Settings
Set the media loading method at media cover close.
Select an item and click the [OK] button.
Media Loading Method (with Cutting)
Media Loading Method (without Cutting)
OK
Cancel

6 Setting is completed. Click (OK) to finish.



Media Position Detection

The following 3 types of media position detection is set on this printer.
This is set from (Media Position Detection) on (Maintenance And Utilities) tab.
The printer's media position detection setting can be checked using Self-test Mode. For details, see "Self-test" on page 167.

Setting	Description
No Detection	Detects paper presence only, and does not adjust the paper position.
Detect Blackmarks on Die-cut Labels	When using Black Mark Die-cut Label, adjusts printing position and autocutting position to the top of the black mark.
Detect Blackmarks on Continuous Paper	When using Black Mark Receipt, adjusts printing position and autocutting position to the top of the black mark.
Detect Margins Between Labels	When using Die-cut Label, adjusts printing position and autocutting position to the top of the labels.

CAUTION The printing is not performed and an error occurs when the printer setting is not matched to the paper type to use. Make sure to set the setting as following.

Paper type to use		No Detection	Detect Blackmarks on Die-cut Labels	Detect Blackmarks on Continuous Paper	Detect Margins Between Labels
Roll Media	Receipt	√	-	-	-
	Full-page Label	√	-	-	-
	Die-cut Label	-	-	-	√
	Black Mark Receipt	-	-	√	-
	Black Mark Die-cut Label	-	√	-	√
	Black Mark Receipt (Wrist Band)	-	-	√	-
Fan-fold Media	Black Mark Receipt	-	-	√	-
	Black Mark Die-cut Label	-	√	-	-

√: Used, -: Not Used

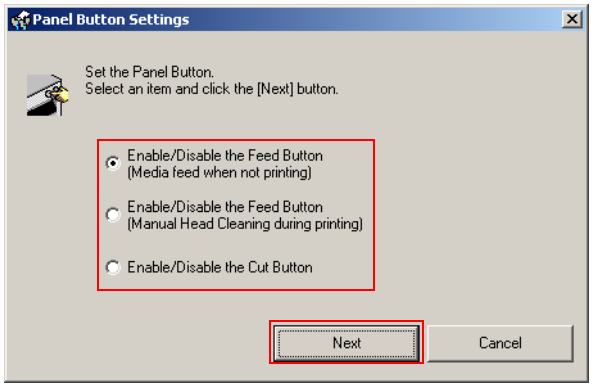
Panel Button Settings

Enable/disable the panel buttons of this printer.

Panel Button	Printer Operating	Operation Caused by Panel Button	Settings
Feed Button	Not printing	Paper feed	Enable / Disable
	Printing	Manual Head Cleaning during printing	Enable / Disable
Cut Button	-	Paper cut	Enable / Disable

Follow the steps below to make the setting.

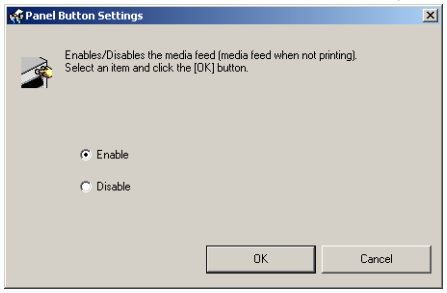
1. Turn the printer on.
2. Display the printer driver window.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)
3. Select (Maintenance And Utilities) tab, and click (Panel Button Settings).
4. The (Panel Button Settings) window is displayed. Select your choice and click (Next).



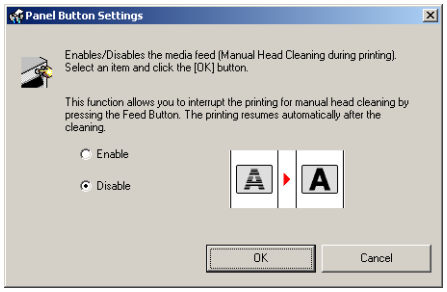
5 Select Enable/Disable the panel button, and click (OK).

Click (Cancel) to terminate without performing the (Panel Button Settings).

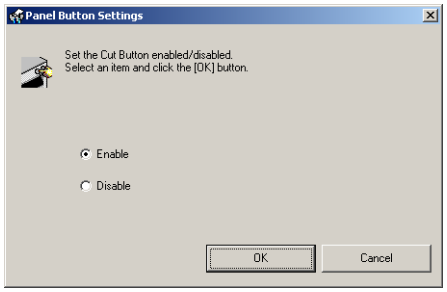
Media feed when not printing



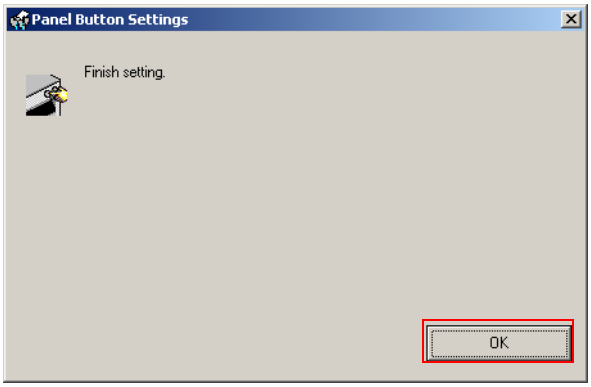
Manual Head Cleaning during printing


Panel Button Settings
Enables/Disables the media feed (Manual Head Cleaning during printing).
Select an item and click the [OK] button.
This function allows you to interrupt the printing for manual head cleaning by pressing the Feed Button. The printing resumes automatically after the cleaning.
Enable
Disable
OK
Cancel

Cut Button



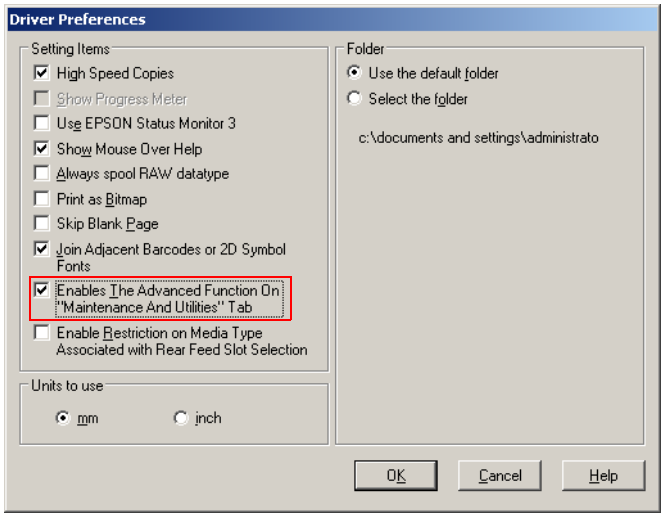
6 Setting is completed. Click (OK) to finish.



Sensor Adjustment

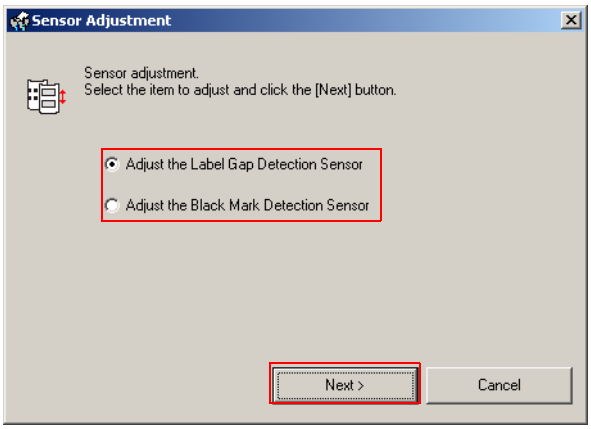
The threshold for the sensor can be adjusted when the sensor does not detect the label gap and black mark for the paper to be used. Follow the steps below to make adjustment.

1. Load the paper to the printer.
2. Turn the printer on.
3. Display the printer driver window.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)
4. Select (Driver Utilities) tab and click (Driver Preferences).
5. The (Driver Preferences) window is displayed.
   Check the box of (Enables The Advanced Function On "Maintenance And Utility"Tab) and click (OK).



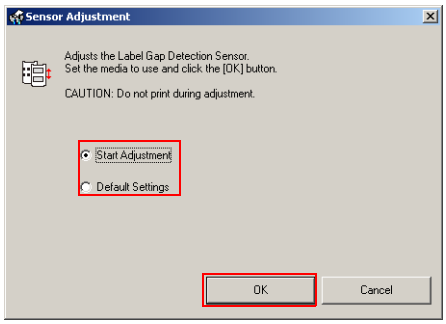
6. Select (Maintenance And Utilities) tab and click (Sensor Adjustment).

7 The (Sensor Adjustment) window is displayed. Select the sensor to be adjusted and click (Next).

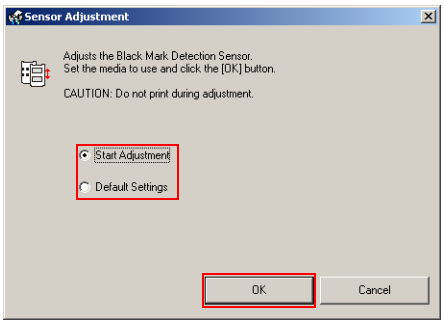

Sensor Adjustment
Sensor adjustment.
Select the item to adjust and click the [Next] button.
Adjust the Label Gap Detection Sensor
Adjust the Black Mark Detection Sensor
Next >
Cancel

8 Select (Start Adjustment)/(Default) and click (OK).
Click (Cancel) to terminate without performing the (Sensor Adjustment).

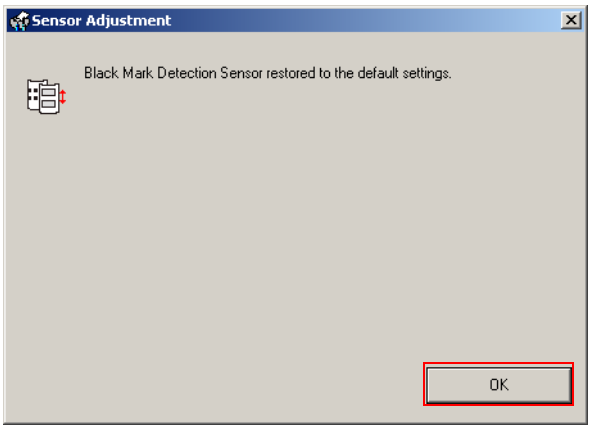
Adjusts the Label Gap Detection Sensor



Adjusts the Black Mark Detection Sensor



9 Adjustment is completed. Click (OK) to finish.

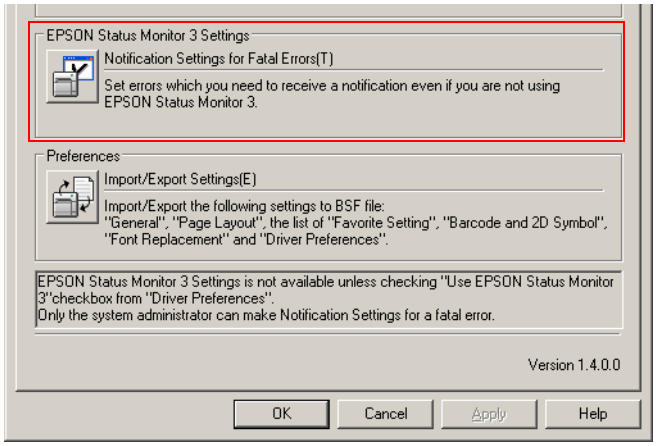


Setting EPSON Status Monitor 3

When EPSON Status Monitor 3 is used, the paper type and the ink level are displayed on a pop-up window when printing. In addition, when a fatal error occurs, an error window is displayed.
(Not use) is set by default setting; however, if a fatal error occurs, an error window can be displayed.

Use/Not use EPSON Status Monitor 3

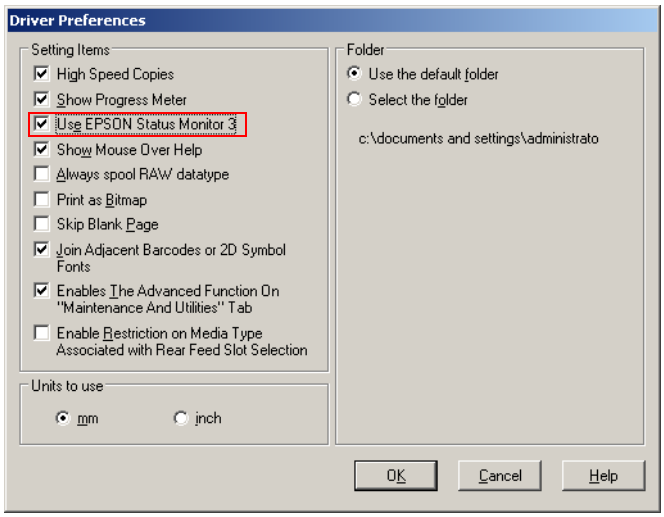
(Not use EPSON Status Monitor 3) is set by default setting. (Notification Settings for Fatal Errors) is displayed on the EPSON Status Monitor 3 Settings window in Driver Utilities.


EPSON Status Monitor 3 Settings
Notification Settings for Fatal Errors(T)
Set errors which you need to receive a notification even if you are not using EPSON Status Monitor 3.
Preferences
Import/Export Settings(E)
Import/Export the following settings to BSF file:
"General", "Page Layout", the list of "Favorite Setting", "Barcode and 2D Symbol", "Font Replacement" and "Driver Preferences".
EPSON Status Monitor 3 Settings is not available unless checking "Use EPSON Status Monitor 3"checkbox from "Driver Preferences".
Only the system administrator can make Notification Settings for a fatal error.
Version 1.4.0.0
OK
Cancel
Apply
Help

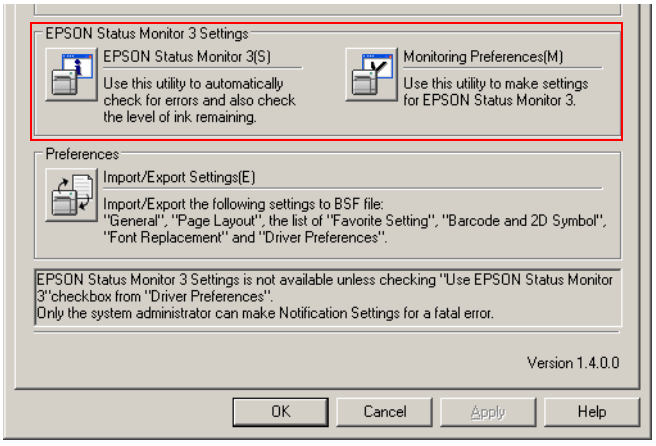
Follow the steps below to change to (Use EPSON Status Monitor 3).

1. Turn the printer on.
2. Display the printer driver window.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)
3. Select (Driver Utilities) tab and click (Driver Preferences).

4 The (Driver Preferences) window is displayed.
Check the box of (Use EPSON Status Monitor 3) and click (OK).



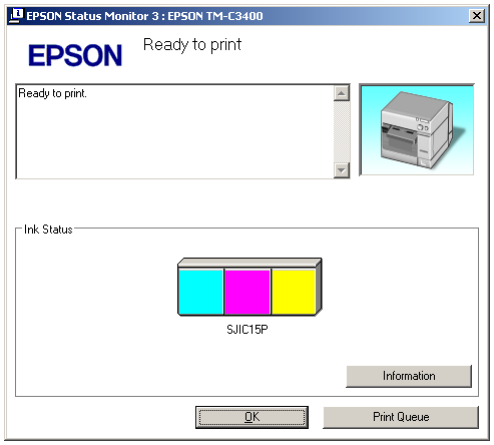
5 (EPSON Status Monitor 3) and (Monitoring Preferences) are displayed in (EPSON Status Monitor 3 Settings) on the Driver Utilities window.


EPSON Status Monitor 3 Settings
EPSON Status Monitor 3(S)
Use this utility to automatically check for errors and also check the level of ink remaining.
Monitoring Preferences(M)
Use this utility to make settings for EPSON Status Monitor 3.
Preferences
Import/Export Settings(E)
Import/Export the following settings to BSF file:
"General", "Page Layout", the list of "Favorite Setting", "Barcode and 2D Symbol", "Font Replacement" and "Driver Preferences".
EPSON Status Monitor 3 Settings is not available unless checking "Use EPSON Status Monitor 3"checkbox from "Driver Preferences".
Only the system administrator can make Notification Settings for a fatal error.
Version 1.4.0.0
OK
Cancel
Apply
Help

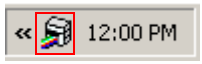
Use EPSON Status Monitor 3

When (Use EPSON Status Monitor 3) is set, the following operations will be performed:

- When printing, a window automatically appears, allowing you to check the printer status and the ink level.
- Error information is displayed when an error occurs during printing.
  The EPSON Status Monitor 3 will not be activated if an error occurs when not printing.
- Clicking the icon for (EPSON Status Monitor 3) on the task tray allows you to display (EPSON Status Monitor 3) at any time.
  (See "Displaying the icon" on page 120 for how to display the icon.)

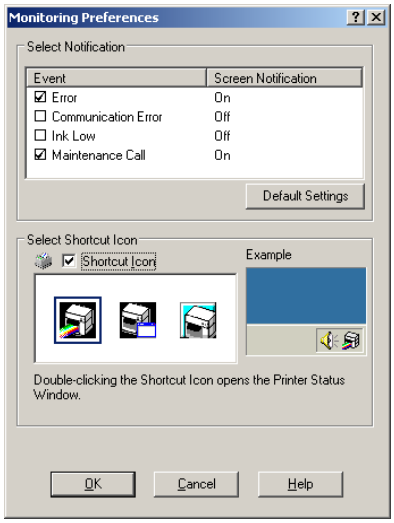


Display window for EPSON Status Monitor 3



Icon on task tray

- The following items can be set in (Monitoring preferences).
  Selecting error indications:
  (See "Error notification setting for (Not use EPSON Status Monitor 3)" on page 118.)
  Displaying the (EPSON Status Monitor 3) icon on the task bar:
  (See "Displaying the icon" on page 120.)



Error notification setting for (Not use EPSON Status Monitor 3)

Follow the steps below to set error notification for (Not use EPSON Status Monitor 3).

1 Turn the printer on.

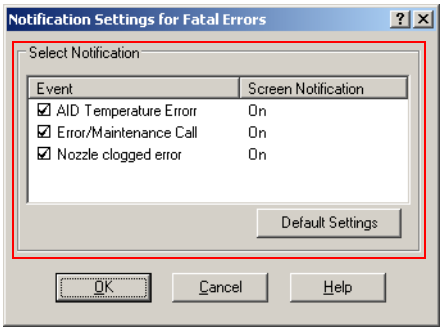
2 Display the printer driver window.

(See "How to Use the Printer Driver" on page 65 for how to display the driver window.)

3 Select (Driver Utilities) tab and click (Driver Preferences).

When EPSON Status Monitor 3 is enabled, (Notification Settings for Fatal Errors) is not displayed. (Disable EPSON Status Monitor 3 by referring to "Use/Not use EPSON Status Monitor 3" on page 115.)

4 The (Notification Settings for Fatal Errors) window is displayed. Select the items you want to display when an error occurs, and click (OK).



- AID Temperature Error: When the AID temperature increases
  (Default setting : Screen Notification (On))
- Error/Maintenance Call: When printing cannot be performed or a maintenance call occurs
  (Default setting : Screen Notification (On))
- Nozzle clogged eror: When the nozzle is clogged
  (Default setting : Screen Notification (On))

Error notification setting for (Use EPSON Status Monitor 3)

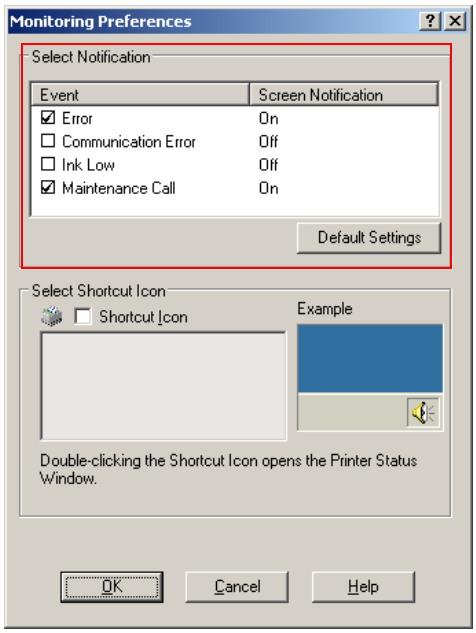
Follow the steps below to set error notification for (Use EPSON Status Monitor 3).

1 Turn the printer on.

2 Display the printer driver window.
(See "How to Use the Printer Driver" on page 65 for how to display the driver window.)

3 Select (Driver Utilities) tab and click (Monitoring Preferences).
When EPSON Status Monitor 3 is disabled, the (Monitoring Preferences) is not displayed. (Enable EPSON Status Monitor 3 by referring to "Use/Not use EPSON Status Monitor 3" on page 115.)

4 The (Monitoring Preferences) window is displayed. Click on the box of your choice, and click (OK).



- Error: When the paper or ink is time to replace (Default setting: screen notification (On))
- Communication Error: When the printer is OFF (Default setting: screen notification (Off))
- Ink Low: When the ink is low (Default setting: screen notification (Off))
- Maintenance Call: When the printer error occurs (Default setting: screen notification (On))

Displaying the icon

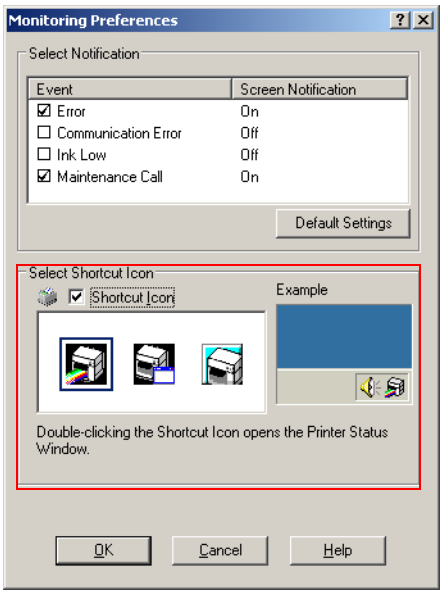
Keeps icon on the task tray so that user can check as needed. The icon is not displayed when default setting. Follow the steps below to display the icon.

1. Turn the printer on.

2. Display the printer driver window.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)

3. Select (Driver Utilities) tab and click (Monitoring Preferences).

4. The (Monitoring Preferences) window is displayed. Check the box of (Shortcut Icon) and select the icon to display on the task bar. Click (OK).



Setting the Post-Printing Movements

The following post-printing movement can be set on this printer.
Sets from (Settings For Handing Paper After Print) on (General) of the printer driver.

❑ **Auto Cut: After Every Page/Only After Last Page/After Specified Number of Pages**
After printing, the paper is fed to the position where autocutting is possible and feeding stops after autocutting. When resuming printing, the paper is fed in the reverse direction to the printing position and then printing resumes.

❑ **No Auto Cut**

- **Feed To Peel Off Position**
  After printing, the printer stops without feeding paper. When the printer does not receive the next print data for 1 second or more, the paper is fed to the position where autocutting is possible but does not perform autocut. To cut the paper, press the CUT button. For the next print data, the paper is fed in the reverse direction to the printing position, and printing resumes. When you want to set no auto cut, this setting is recommended.
  The difference from "Feed To Cut Position" is that when printing multiple data continuously, printing takes less time with this setting. When "Feed To Cut Position" is selected, printing takes longer since the paper is fed to the position where autocutting is possible and fed in the reverse direction to the printing position for each job, even for continuous printing.
- **Feed To Cut Position**
  After printing, the paper is fed to the position where autocutting is possible but does not perform autocut. In this case, paper cutting is possible with the CUT button. When resuming printing, the paper is fed in the reverse direction to the printing position then printing resumes.
- **Stop at the Print End Position**
  This is the setting for Die-cut Label. After printing, the Die-cut Label is fed to the position where peeling is possible and stop feeding.
  Although autocutting is not performed, paper cutting is possible with the CUT button. When resuming printing, the paper is fed in the reverse direction to the print starting position and then printing resumes.

Setting (Settings For Handing Paper After Print) depending on the paper type and paper cutting

Sets "post-printing movements" depending on the type of the paper and how the paper is cut.

Paper type to use		Printer Diver Settings	Printer Operating			
		Paper cutting method	Auto Cut	No Auto Cut		
				Stop at the Print End Position	Feed To Cut Position	Feed To Peel Off Position
Roll Media	Receipt	Cuts automatically	√	-	-	-
	Full-page Label	Cuts automatically	√	-	-	-
	Die-cut Label	Cuts automatically	√	-	-	-
		Peels the label by user Backing paper is not cut	-	-	-	√
		Cuts the backing paper by pressing (CUT button)	-	√	√	-
	Black Mark Receipt	Cuts automatically	√	-	-	-
	Black Mark Die-cut Label	Cuts automatically	√	-	-	-
		Peels the label by user Backing paper is not cut	-	-	-	√
		Cuts the backing paper by pressing CUT button	-	√	√	-
	Black Mark Receipt (Wrist Band)	Cuts automatically	√	-	-	-
Fan-fold Media	Black Mark Receipt	Cuts automatically	√	-	-	-
	Black Mark Die-cut Label	Cuts automatically	√	-	-	-
		Peels the label by user Backing paper is not cut	-	-	-	√
		Cuts the backing paper by pressing CUT button	-	√	√	-
		Tears along perforated line manually	-	-	-	√

√: Used, -: Not Used

Application Development Information

Overview

The following is provided to use this printer.

- ❏ The dedicated printer driver for Windows is available.(p.123)
  The reprint function is implemented in the printer driver. The reprint function is not necessary to be implemented in the application since the printer driver performs reprint automatically when an error occurs (paper out, paper jam or ink missing dots occurs).
  (See "How to Use the Printer Driver" on page 65 for details.)
- ❏ Various utilities and user's manuals are available.(p.124)
- ❏ APIs for setting the product and the printer driver are available. (p.131)
- ❏ Dedicated sample program for TM-C3400 is available.(p.138)
  Use this as reference to develop the application.

> **CAUTION** This printer can not use the APD or UPOS provided by EPSON.

Printer Driver

The printer driver has the following functions and these are not necessary to implement in the application.

- ❏ Barcode and 2D symbol font is implemented. The barcode and 2D symbol font can also be printed using font replacement function for .NET environment.
  The barcode and 2D symbol font must be set in advance on the printer driver to use this function. (See "Barcode Printing" on page 71 and "2D Symbol Font Settings" on page 84 for details of how to make setting.)
  On .NET environment, True Type font is specified to be replaced by barcode and 2D symbol font. The barcode and 2D symbol can be printed by specifying replaced True Type font from the application. (See "Barcode and 2D Symbol Font Printing on .NET Environment" on page 91 for details about font replacement function.)
- ❏ The reprint function is implemented.
  The reprint preforms automatically from the page where the error occurs during printing.
  Some conditions are required, see "Post-Printing Verification Settings" on page 19 for details.

Utilities and Manuals

The several kinds of utilities and manuals other than the printer driver are available for this printer.

Name	Package file name	Manual
Printer Driver	c34d32_xxxx.exe	TM-C3400-LT Technical Reference Guide
Printer status	-	TM-C3400-LT Technical Reference Guide
Printer Setting	c34ps_xx.exe	TM-C3400 Printer Setting Guide
Sample Program	c34smp_xxe.exe c34smp_xxe.msi	For how to use, see the menu page of the sample program.

Printer status

This is a utility for verifying the status of the product.

See "Printer status" on page 57 for details.

EPSON Status Monitor 3

This is automatically installed when installing the printer driver. The ink level and the printer status can be checked on the window if this is effective on the printer driver.

Printer Setting

This is to change settings at one time for several printer drivers in the network. For USB interface model, the USB serial number can also be edit.

For using this utility, the printer driver is needed to be installed.

NOTE

- Only the driver settings saved in NV memory in the printer can be copied. The driver settings saved in the computer can not be copied. See "Printer Driver and Utility" on page 126 for the settable items.
- See Printer Setting User's Manual for details.

Sample Program

This is a collection of sample programs for printing using the product.

(VB.NET, C++ is prepared for all programs. VB 6.0, C# is prepared for some programs.)

NOTE

The sample programs are initially installed.

They can be used from [Start] - [All Programs] - [EPSON] - [EPSON TM-C3400 Sample Program].

Download

Drivers, utilities, and manuals can be downloaded from one of the following URLs.
For customers in North America, go to the following web site:

http://www.epsonexpert.com/ and follow the on-screen instructions.

For customers in other countries, go to the following web site:

https://download.epson-biz.com/?service=pos

Select the product name from the "Select any product" pulldown menu.

Printer Driver and Utility

Function List

	Printer Driver				
	(Driver Utilities) tab	(Maintenance And Utilities) tab	EPSON Status Monitor 3	Printer status	Printer Setting
Setting					
Driver setting	√	-	-	-	-
Printer setting (See "Setting the Printer" on page 127 for details)	-	√	-	-	√
Acquiring					
Printer setting reference/change (See "Setting the Printer" on page 127 for details)	-	-	-	-	√
Displaying the printer status/error information (See "Acquiring Printer Status" on page 129 for details)	-	-	√	√	-

Setting the Printer

Setting	Item	Driver Printer Utility		Printer Setting	
		Setting	Acquiring	Setting	Acquiring
Print Head Alignment	Bi-directional printing position adjustment	√	-	-	-
	Paper feed adjustment	√	-	-	-
Print Start Position Adjustment	Print Start Position Adjustment (Roll Paper)	√	-	-	-
	Print Start Position Adjustment (Margins between labels/ black marks/ autocutter)	√	-	-	-
Media Feed Pitch Adjustment	Auto Cut Position Adjustment	√	-	√	√
	Print Start Position Adjustment	√	-	√	√
Media Loading Settings	Media Loading Method at Start up	√	-	√	√
	Media Loading Method at Media Cover close	√	-	√	√
Notification Settings	Beep Notification Setting at an Error	√	-	√	√
	Notification Setting at a Paper Size/ Type Error	√	-	√	√
FEED button (Media feed when not printing)	Enabled/disabled FEED button	√	-	√	√
FEED button (Manual head cleaning during printing)	Enabled/disabled FEED button	√	-	-	-
CUT button	Enabled/disabled CUT button	√	-	√	√

Setting	Item	Driver Printer Utility		Printer Setting	
		Setting	Acquiring	Setting	Acquiring
Post-Printing Verification Settings	Missing Dot Operation Settings	√	-	√	√
	Void Image Registration	√	-	√	√
	Displays Void Image Registration name	√	-	√	√
	Void Image Test Print	√	-	X	X
USB Serial Number Settings	USB Serial Number	X	-	√	√
Sensor Adjustment	Adjusts the Label Gap Detection Sensor	√	-	-	-
	Adjusts the Black Mark Detection Sensor	√	-	-	-

Acquiring Printer Status

		EPSON Status Monitor 3	Printer Status
Ink Status	Ink color	√	√
	Ink Levels	√	√
Error	Communication error	-	√
	Autocutter error	-	√
	Fatal error	-	√
	Cover open	-	√
	Paper jam	-	√
	It is the time to replace the ink cartridge.	-	√
	Paper empty	-	√
	Paper size error	-	√
	Disposal ink overflow	-	√
	Paper recognition error	-	√
	Ink cover open	-	√
	Ink must be replaced.	-	√
Self printing	Test print	-	√
	Void image printing	-	√
Printer status	Busy	-	√
	Waiting	-	√
	Idle	-	√
Warning	It is the time to replace the ink cartridge.	-	√
	Maintenance requirement is near.	-	√
	Disposal ink overflow is near.	-	√

	EPSON Status Monitor 3	Printer Status
Cleaning	-	√
Factory default setting	-	√
Shutting down	-	√

TM-C3400-LT API

We provide the following APIs for developing applications that use the product.

Name	Manual
TM-C3400-LT Library	• TM-C3400-LT Technical Reference Guide • TOOLS & LIBRARIES Reference for TM-C3400-LT
EPDI for TM-C3400	EPDI for TM-C3400 Reference Manual

TM-C3400-LT Library

This is an API for controlling the product. The following can be controlled.

- Printer power on/off
- Touch panel brightness adjustment
- Media source settings

For details, see "TM-C3400-LT Reference Library" on page 132.

NOTE

TM-C3400-LT Library is initially installed.
<Storage location of library file>
C:\Program Files\EPSON\TM-C3400-LT TOOL\TMC34LT_UTILLIB.dll

EPDI (EPSON Printer Driver Interface)for TM-C3400

This is an API for setting the printer driver.
This API can be downloaded from the company's web site (p.125) and used.

CAUTION

Set the following settings using the printer driver. They cannot be set using EPDI forTM-C3400.

* Driver Utilities
* Maintenance And Utilities(However, [Media position detection] can be set.)

TM-C3400-LT Reference Library

This section describes the APIs provided in TM-C3400-LT Library.

TMC34LT_PrinterPowerOn

Turn the printer power on.

Syntax

```
int TMC34LT_PrinterPowerOn()
```

Return Value

Return Value	Description
0	Success
Not 0	Failed (Returns an OS error code.)

TMC34LT_PrinterPowerOff

Turn the printer power off.

NOTE	This API returns immediately even if the printer is executing the head cleaning. But printer power turns off after finished the head cleaning or other process.

Syntax

```
int TMC34LT_PrinterPowerOff()
```

Return Value

Return Value	Description
0	Success
Not 0	Failed (Returns an OS error code.)

TMC34LT_SetBrightness

Change LCD brightness.

> **NOTE** This setting is valid only while the product power is on. This setting will be lost when power off the product.

Syntax

```
int TMC34LT_SetBrightness(int nBrightness)
```

Argument

nBrightness : This specifies the Value of brightnes(0 to 255)s.
0 means minimum brightness and 255 means maximum brightness.

Return Value

Return Value	Description
0	Success
-1	Parameter is in error. Specify an appropriate value and re-execute.
Other than the above	Failed (Returns an OS error code.)

TMC34LT_SetPrinterBin

Set the media source.

> **CAUTION** This API will be success only when the roll paper cover is closed without media and printer status is ready.

Syntax

```
int TMC34LT_SetPrinterBin(long nBin, PTSTR pMessageBuf)
```

Argument

nBin : This specifies the media source.

Setting Value	Media source
0	Roll media
1	Fanfold media

pMessageBuf : This specifies the address of error message store area.
Error message is returned by Uicode.

Return Value

Return Value	Description
0	Success
Less than 0	Failed
1	Mechanical adjustment inside printer is required. Contact the store where you purchased the product or an Epson service center.
2 or 3	Uncleanable clogged print head nozzles detected. Please turn the printer off. You can continue printing, but the print result may be affected. Please contact the store where you purchased the product or an Epson service center as soon as possible.
5	Printer error. (xxx) * Please turn the printer off. Remove any foreign objects from inside the printer then turn the printer back on. If this is the first print job, please, check to make sure all packing materials and parts have been removed. *xx indicates the Fatal error code.

Return Value	Description
8	Low temperature error. The ambient temperature may be too low. Set the ambient temperature within 0°C {32°F} and 40°C {104°F}, turn off the printer and then turn it back on.
9	High temperature error. The ambient temperature may be too high. Set the ambient temperature within 0°C {32°F} and 40°C {104°F}, turn off the printer and then turn it back on.
10	Roll media cover open. Close the roll media cover.
11	Ink cartridge cover open. Close the ink cartridge cover. In case of replacing the ink cartridge, please follow the replacement procedure which is described on the ink cartridge.
12	Media jam. Open the roll media cover and remove the jammed media, then close the roll media cover.
13	Media jam. Open the roll media cover and remove the jammed media. Then close the roll media cover and reload the fanfold media.
15	Replace the ink cartridge. Epson brand products are recommended.
16	Ink cartridge needs replacing, or cannot be recognized correctly. Replace the ink cartridge. Epson brand products are recommended.
17	New media is loaded without removing the existing media. Remove the loaded new media once. Remove any media which is still in the printer and load the new media again.
20	Media cannot be recognized correctly. Check the media type which printer supports, then set the correct media.
21	Loaded media size does not match the specified setting. Load the correct size media which you want print.
22	Media source setting is not saved correctly. Specify the correct media source again.
101	The media source could not be changed because media remain in the printer. Please remove the remaining media before change the setting.
102	The media source could not be changed because print head is cleaning or other reason. Please change the setting again after a while.

TMC34LT_GetPrinterBin

Acquires the media source.

Syntax

```
int TMC34LT_SetPrinterBin(long *nBin)
```

Argument

long *nBin : Specifies the memory address where the media source is set.

Retrieved value	Media source
0	Roll media
1	Fanfold media

Return Value

Return Value	Description
0	Success
Not 0	Failed

Sample Program

Refer to TM-C3400 sample program to develop the application using this printer.

> **NOTE** The sample programs are initially installed.
> They can be used from [Start] - [All Programs] - [EPSON] - [EPSON TM-C3400 Sample Program].

❏ Conditions to using TM-C3400 sample program

- Use Die-cut Label (108 × 174.8 mm).
- Change settings to (Detect Margin Between Labels) on (Media position detection Setting) of the printer driver.
- Languages of C++, C#, VB.NET are provided for the TM-C3400 sample program.
- The TM-C3400 sample program cannot be used for other printers than this printer.

❏ Structure of TM-C3400 sample program
The following is the structure, model and language to use for TM-C3400 sample program.

Level	Program name	Support	Description
Basic	Step 1 Printing characters	√	Basic print program. (Language:C++, VB.NET)
	Step 2 Printing bar codes	√	Sets barcode font to use in advance for print program (Language:C++, VB.NET)
	Step 3 Printing bit map data	√	Includes bit map data (Language:C++, C#, VB.NET, VB6.0)
	Step 4 Requesting the printer status from the application	-	Not supported in TM-C3400-LT.
	Step 5 Notifying the printer status from the printer to the application	-	Not supported in TM-C3400-LT.
	Complete basic features	-	Not supported in TM-C3400-LT.
Application	Monitoring the printer status and controlling print jobs	-	Not supported in TM-C3400-LT.
	Changing the print settings with DEVMODE	-	Not supported in TM-C3400-LT.
	Obtaining various printer information	-	Not supported in TM-C3400-LT.
	Obtaining the print completion	-	Not supported in TM-C3400-LT.

Application Specification to Develop

This section describes specifications to develop printing application of this printer.

Character Size to Print

To avoid mistaking characters due to missing dots or ink smear, configure the character size setting for your application to a font with 2 or more (vertical) dot configuration (such as Arial 8pt or larger).

Print Barcode / 2D Symbol Data on the Graphic Data

When creating barcode / 2D symbol data as the graphic data on user's application, use the following input resolution.

Paper type	Print quality	Input resolution (dpi) (Horizontal × vertical)	Image resolution (dpi) (Horizontal × vertical)
Plain Media Plain Media Label	Speed	180 × 180	360 × 180
	Quality	360 × 360	360 × 360
Other paper	Speed	360 × 360	360 × 360
	Quality	360 × 360	720 × 360

Whether paper feed is performed during 2D symbol printing can be checked using (Display Media Feed Position) - (Display Print Preview) in the Print Preview function. For this function, see "Print Preview" on page 94.

When Extremely High Reliability and Safety are Required

Epson recommends the following functions:

- Missing dot detection with the auto nozzle check system of the printer driver. ("Post-Printing Verification Settings" on page 19)
- Visual detection with the missing dot detection pattern created with the application.
- Creation of a barcode with a check digit with application.

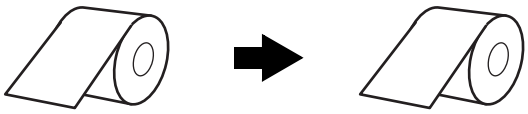
Maintenance

Replacing the Paper

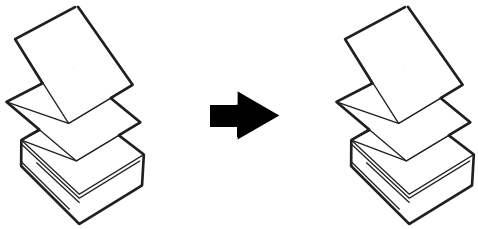
This section describes how to replace the paper.
The paper replacement method will vary as shown below depending on the shape of the paper (roll paper / fanfold paper) used before and after the replacement.

> **CAUTION** When changing to paper of a different type or shape, be sure to also change the printer settings. For details on how to change the settings, see "Setting the Media Position Detection" on page 161.

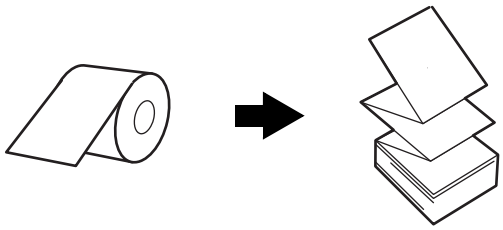
❏ **Replacing Roll Paper with Roll Paper (see p.140)**
Such as when replacing the paper with roll paper of a different type (label, size, etc.)



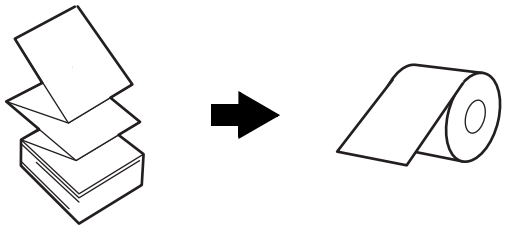
❏ **Replacing Fanfold Paper with Fanfold Paper (see p.144)**
Such as when replacing the paper with fanfold paper of a different type (label, size, etc.)



❏ **Changing From Roll Paper to Fanfold Paper (see p.148)**



❏ **Changing From Fanfold Paper To Roll Paper (see p.154)**



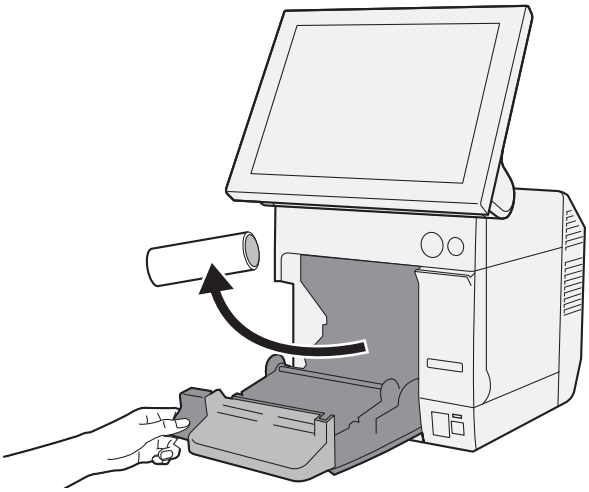
Replacing Roll Paper with Roll Paper

When replacing roll paper with roll paper, such as when replacing with a different type (label, size, etc.) of roll paper, follow the steps below.

> **CAUTION** When changing to paper of a different paper type (fine paper to/from normal paper) or label type (die cut label to/from full-page label), you need to also change the printer settings using the printer driver. For details on how to change the settings, see "Setting the Media Position Detection" on page 161.

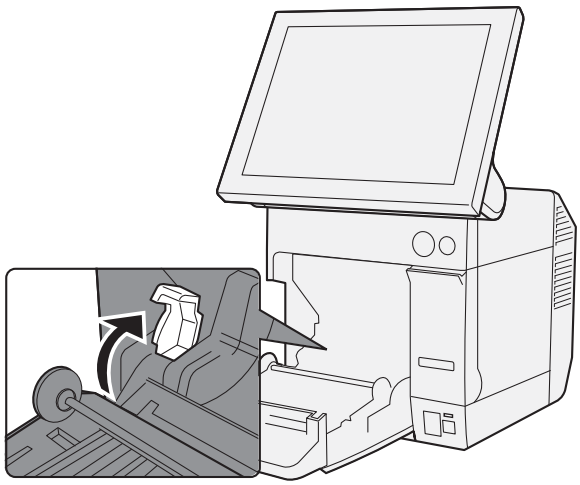
1 Verify that the power of the product is on.

2 Pull the release lever to open the roll paper cover, and remove the roll paper.

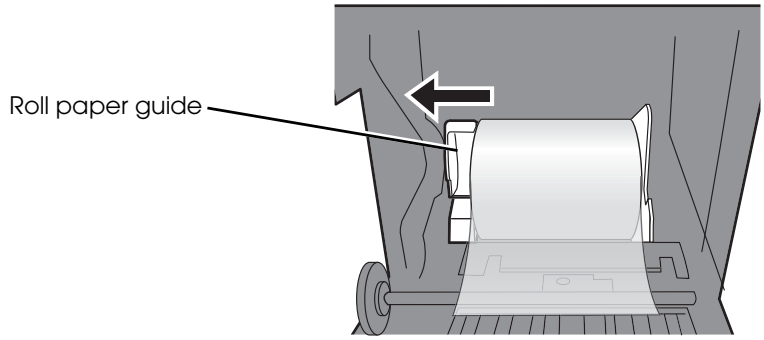


> **NOTE** If there is no change in paper width, you can skip steps 3 to 5 and steps 7 to 9.

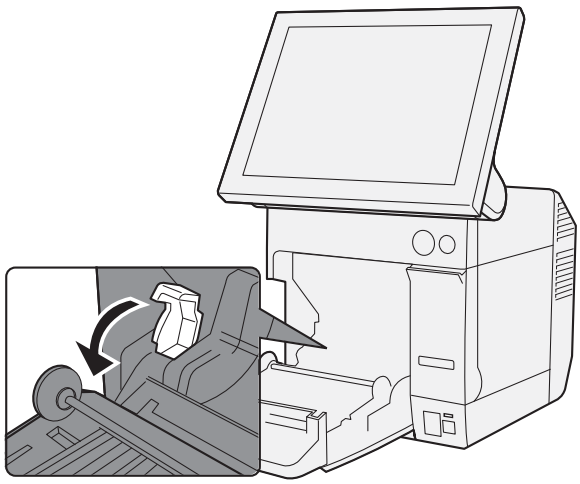
3 Unlock the roll paper guide.



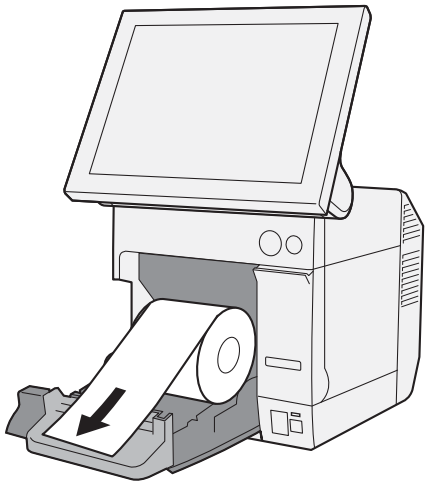
4 Push the roll paper guide on the left in the direction of the arrow, and load the roll paper with the printing side up.



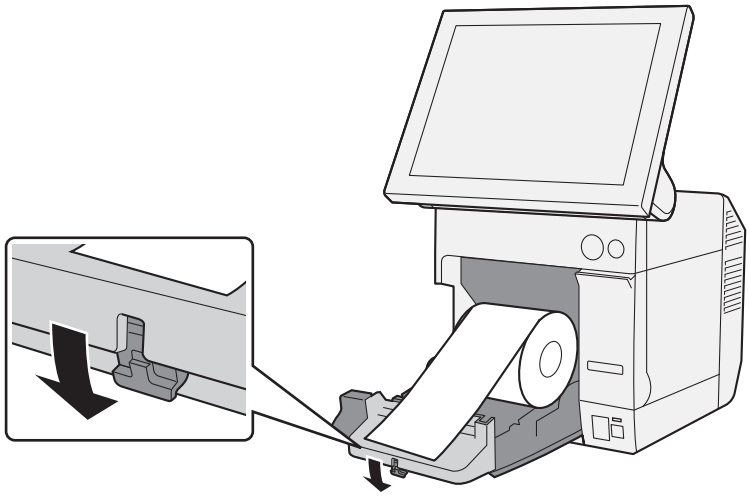
5 Lock the roll paper guide.



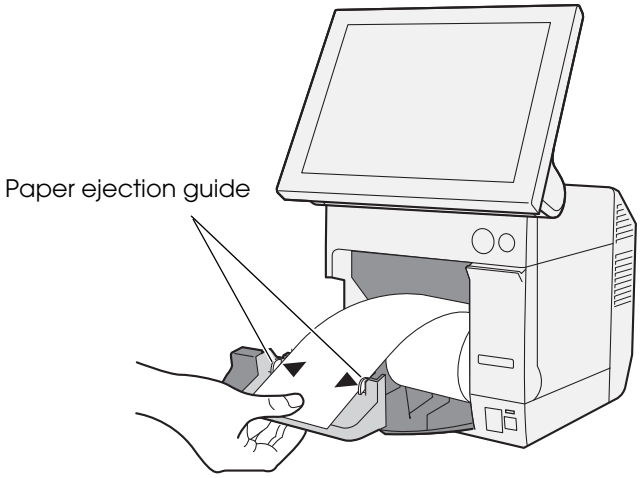
6 Unroll the paper slightly by pulling it forward and insert the roll paper all the way to the back with the printable side up.



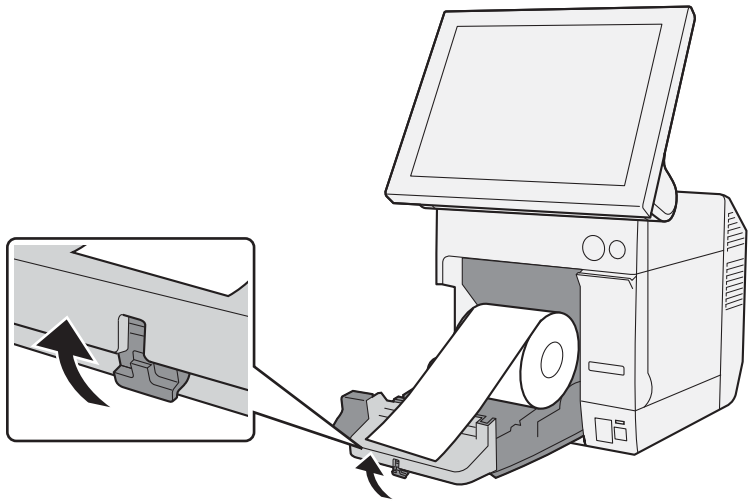
7 Release the lock of the paper ejection guide.



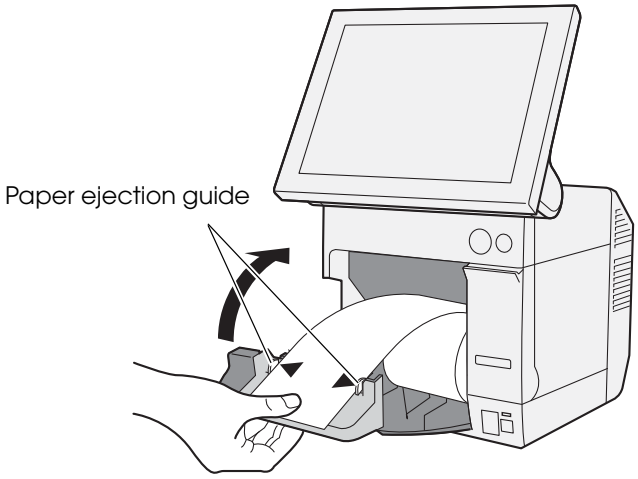
8 Align the paper ejection guide with the roll paper width.



9 Lock the paper ejection guide.



10 Close the roll paper cover while aligning the roll paper with the paper ejection guide.



The roll paper is automatically fed.

This completes the replacement of roll paper with roll paper.

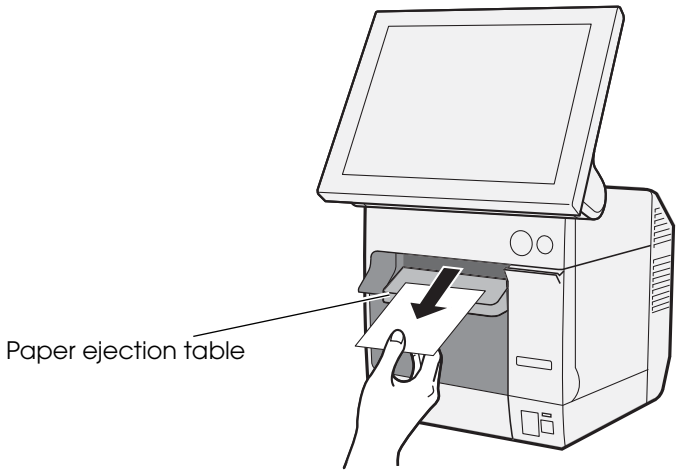
Replacing Fanfold Paper with Fanfold Paper

When replacing fanfold paper with fanfold paper, such as when replacing with a different type (label, size, etc.) of fanfold paper, follow the steps below.

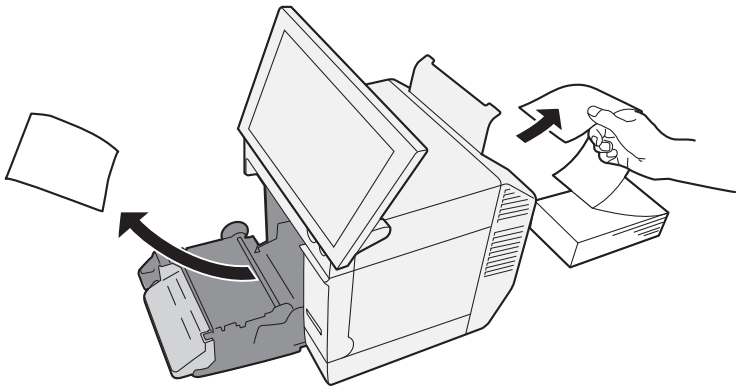
> **CAUTION** When changing to paper of a different paper type (fine paper to/from normal paper) or label type (die cut label to/from full-page label), be sure to also change the printer settings using the printer driver. For details on how to change the settings, see "Setting the Media Position Detection" on page 161.

1 Verify that the power of the product is on.

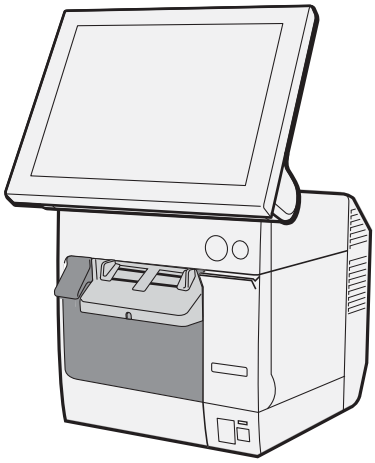
2 Remove the remaining paper from the paper ejection table.



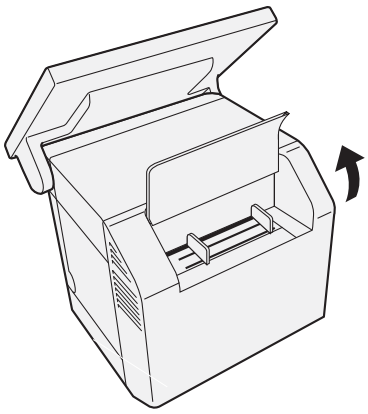
3 Open the roll paper cover and fanfold paper cover and remove the paper.



4 Close the roll paper cover.



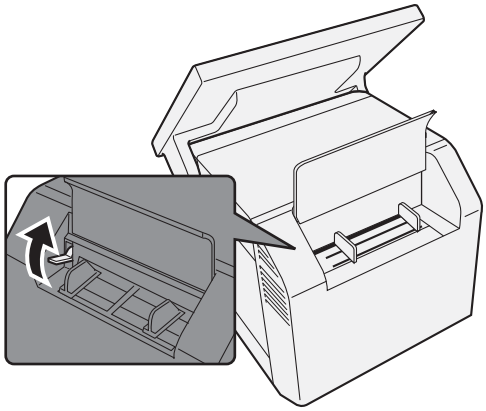
5 Open the fanfold paper cover.



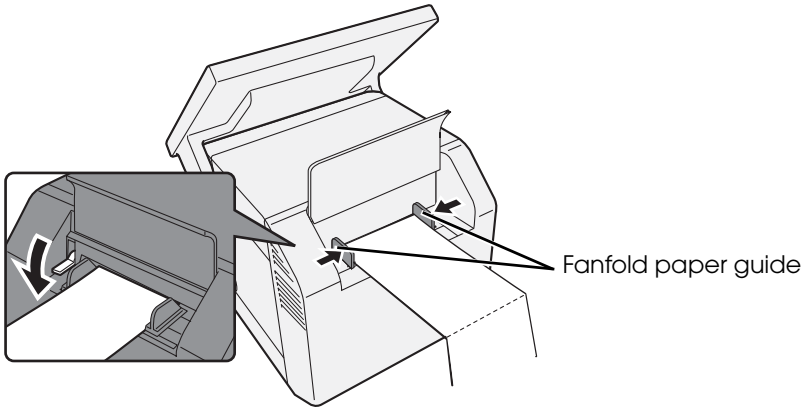
NOTE

If there is no change in paper width, you can skip steps 6 to 7.

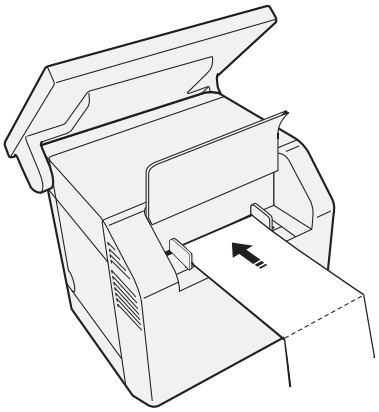
6 Unlock the fanfold paper guide.



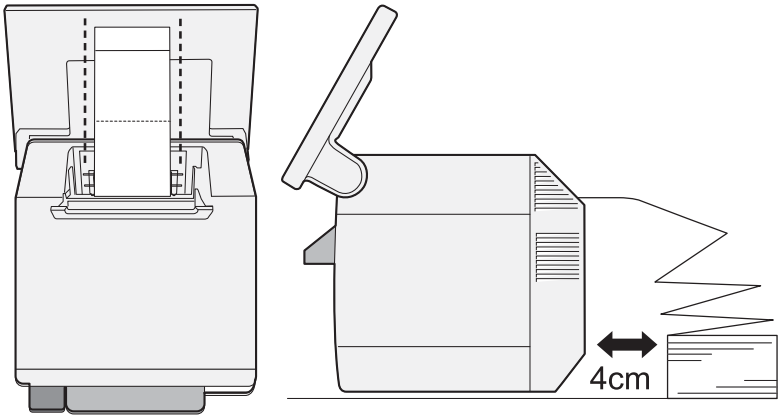
7 Align the fanfold paper guide with the width of the fanfold paper and lock the guide.



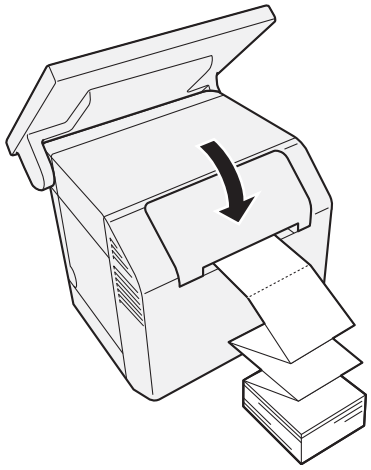
8 linsert the paper into the paper slot with the print surface facing upward until it is pulled into inside the printer (approximately 100 mm).
The paper is automatically fed.



9 Place the paper straight at least 40 mm from the this product.



10 Close the fanfold paper cover.

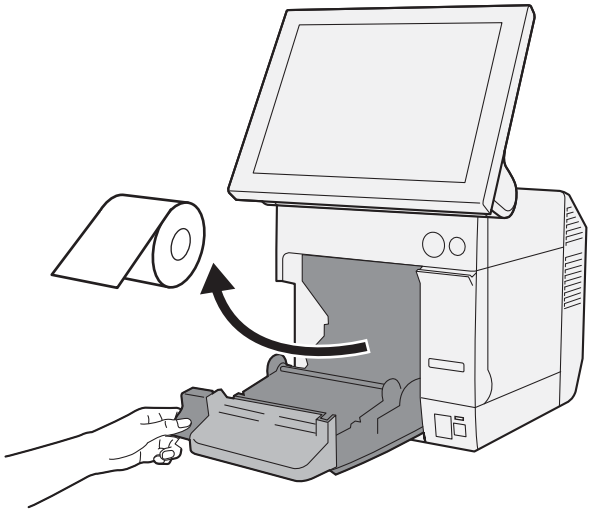


This completes the replacement of fanfold paper with fanfold paper.

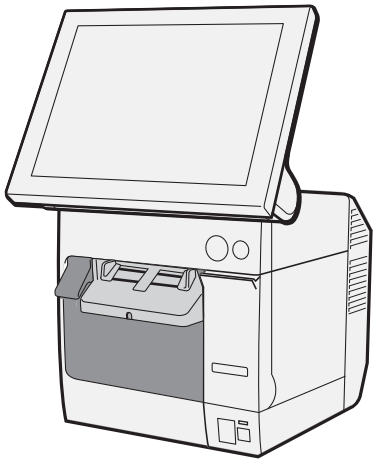
Changing From Roll Paper to Fanfold Paper

1 Verify that the power of the product is on.

2 Pull the release lever to open the roll paper cover, and remove the roll paper.

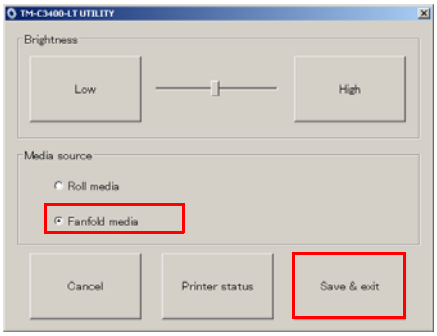


3 Close the roll paper cover.



4 In the TM-C3400-LT Utility, set (Media source) to (Fanfold media), and press (Save&exit).

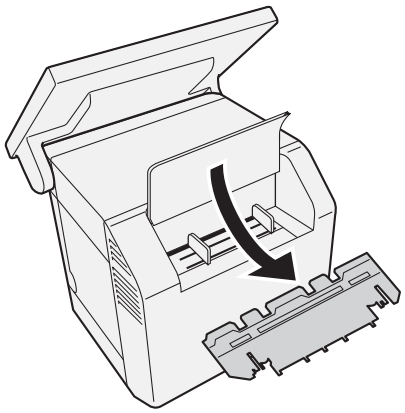
For details on the TM-C3400-LT Utility, see "TM-C3400LT Utility" on page 56.



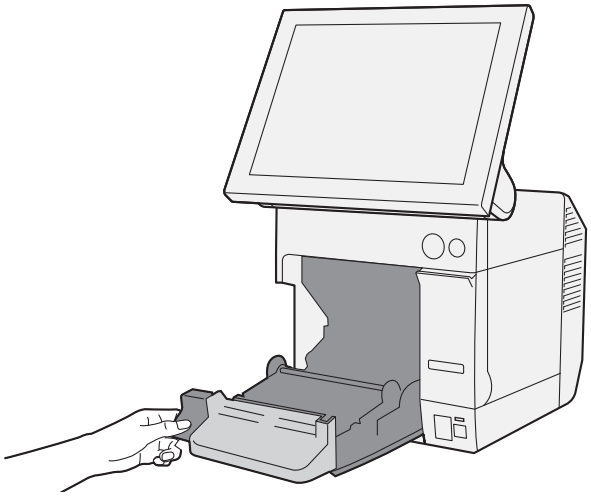
5 In the printer driver, change (Media Source) and (Media Position Detection).

For details on (Media Position Detection), see "Setting the Media Position Detection" on page 161.

6 Open the fanfold paper cover and take out the paper feed guide.

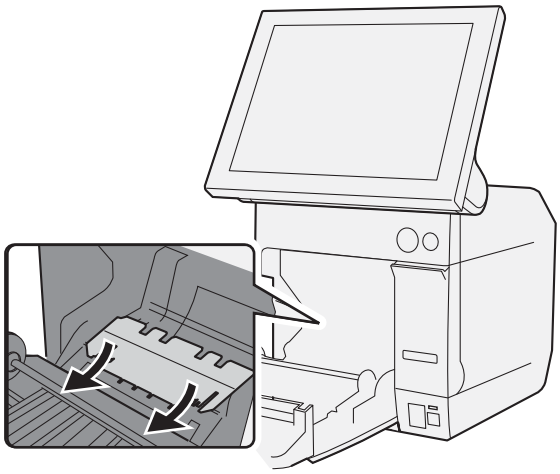


7 Pull the release lever to open the roll paper cover.

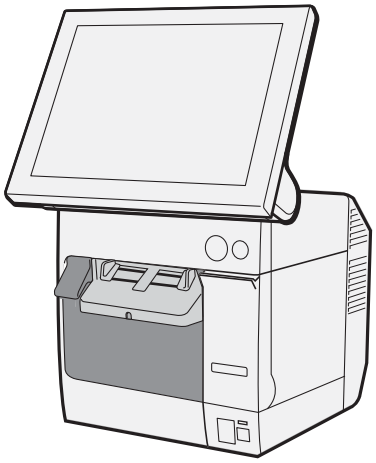


8 Attach the paper feed guide by inserting it into the groove inside the roll paper cover.

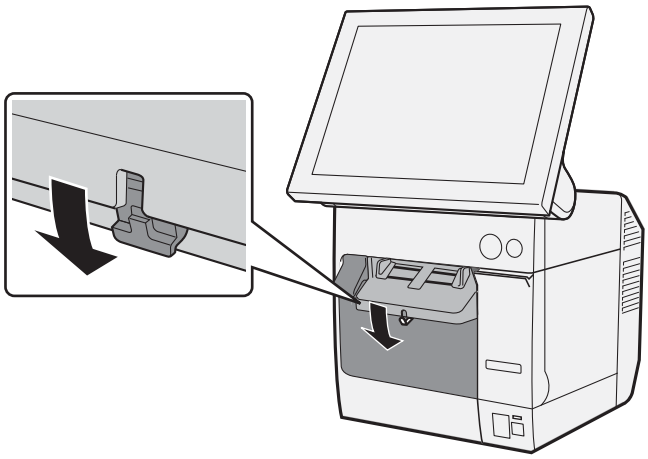
CAUTION	When using fanfold paper, be sure to attach the paper feed guide.



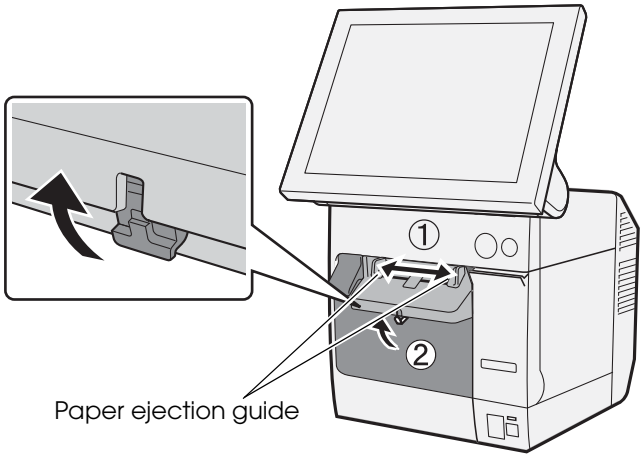
9 Close the roll paper cover.



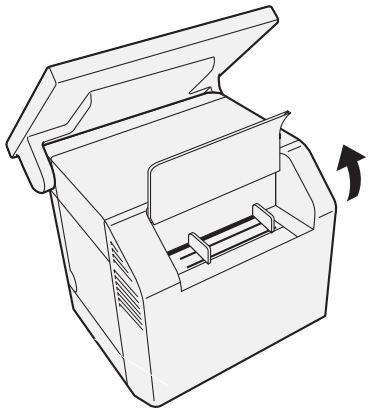
10 Release the lock of the paper ejection guide.



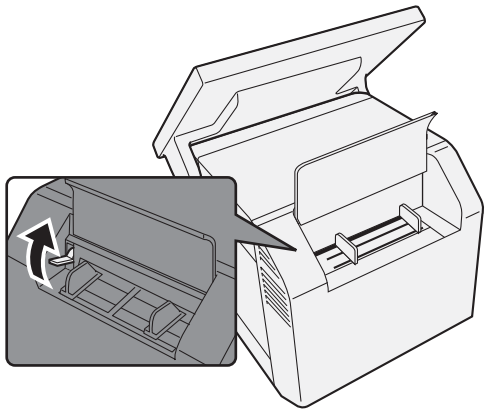
11 Slide the paper ejection guide to the outermost position ((1) in figure below) and lock the paper ejection guide ((2) in figure below).



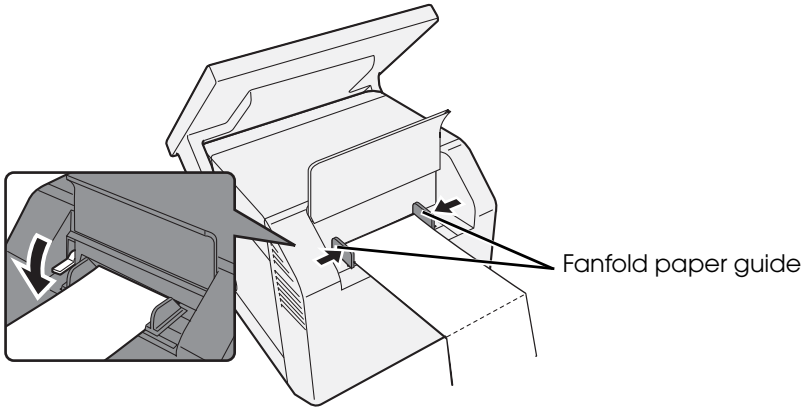
12 Open the fanfold paper cover.



13 Release the lock of the fanfold paper guide.

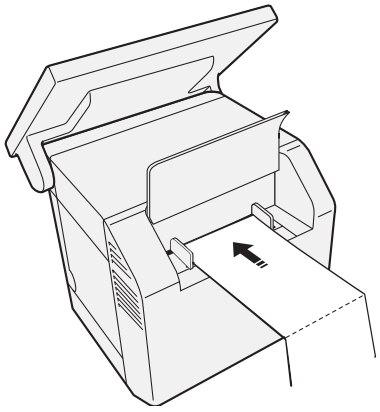


14 Align the fanfold paper guide with the width of the fanfold paper and lock the guide.

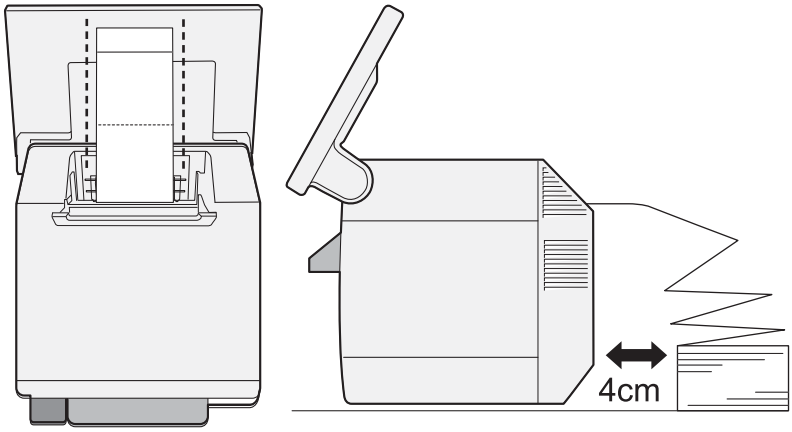


15 Insert the paper into the paper slot with the print surface facing upward until it is pulled into inside the printer (approximately 100 mm).

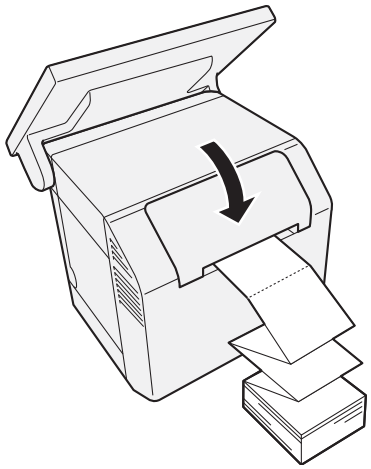
The paper is automatically fed.



16 Place the paper straight at least 40 mm from the this product.



17 Close the fanfold paper cover.

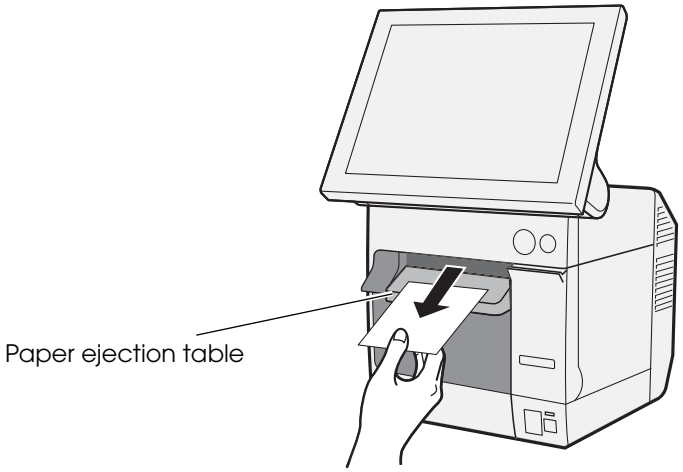


This completes the procedure of replacing roll paper with fanfold paper.

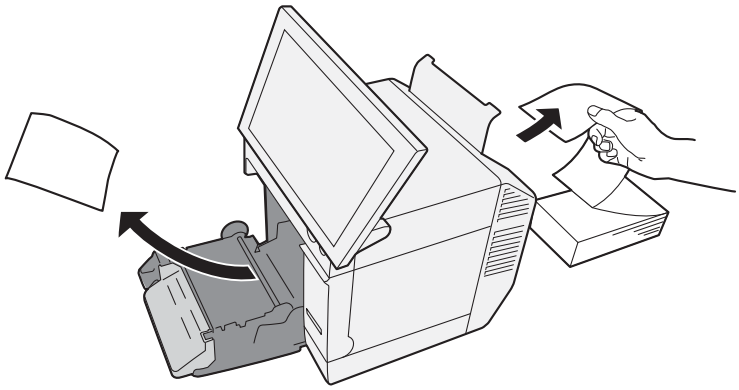
Changing From Fanfold Paper To Roll Paper

1 Verify that the power of the product is on.

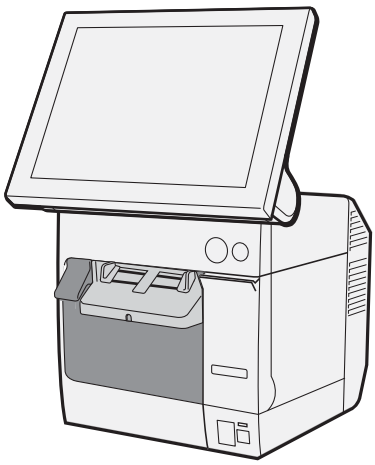
2 Remove the remaining paper from the paper ejection table.



3 Open the roll paper cover and fanfold paper cover and remove the paper.

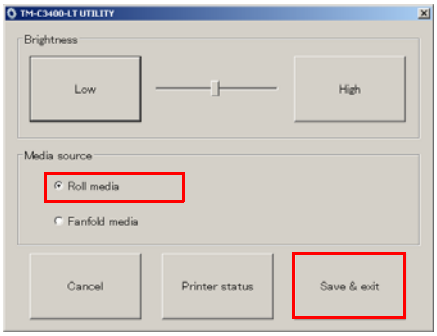


4 Close the roll paper cover.



5 In the TM-C3400-LT Utility, set (Media source) to (Roll media), and press (Save&exit).

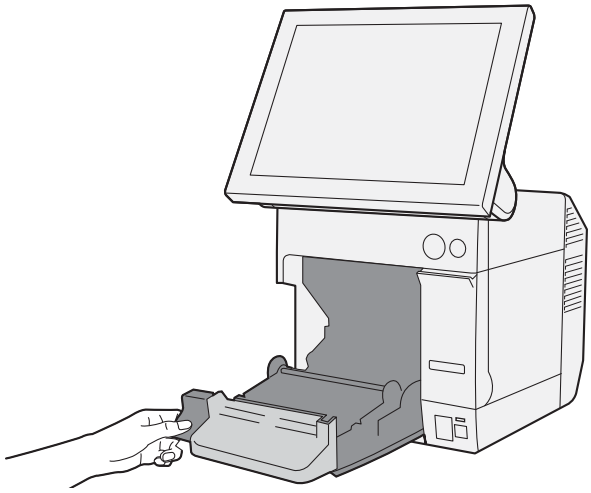
For details on the TM-C3400-LT Utility, see "TM-C3400LT Utility" on page 56.



6 In the printer driver, change (Media Source) and (Media Position Detection).

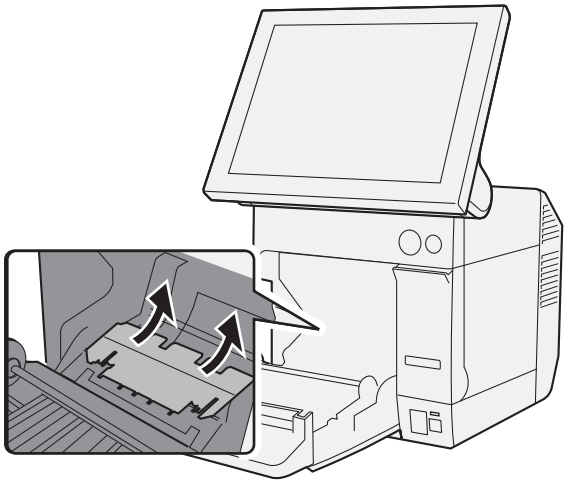
For details on (Media Position Detection), see "Setting the Media Position Detection" on page 161.

7 Press down the release lever, and pull it to the front to open the roll paper cover.

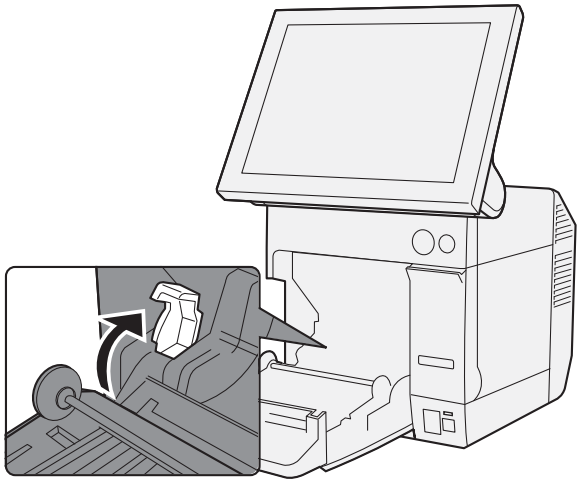


8 Slide the paper feed guide in the direction of the arrow and remove it.

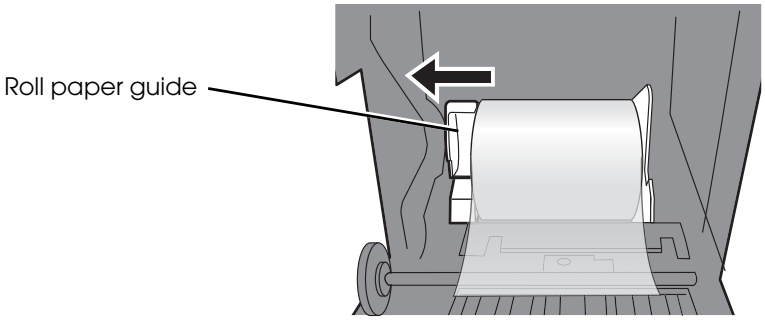
CAUTION	When using roll paper, be sure to remove the paper feed guide.



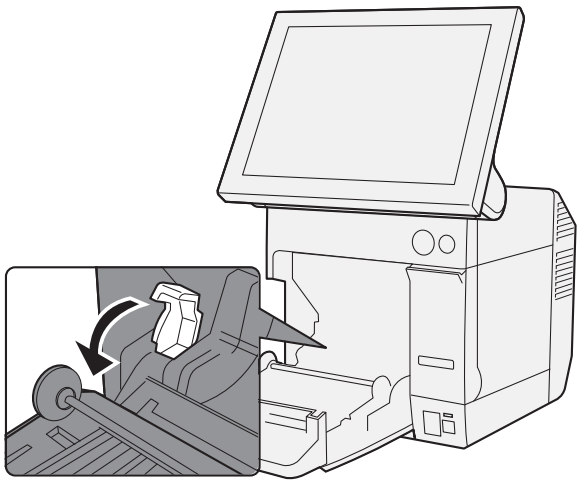
9 Unlock the roll paper guide.



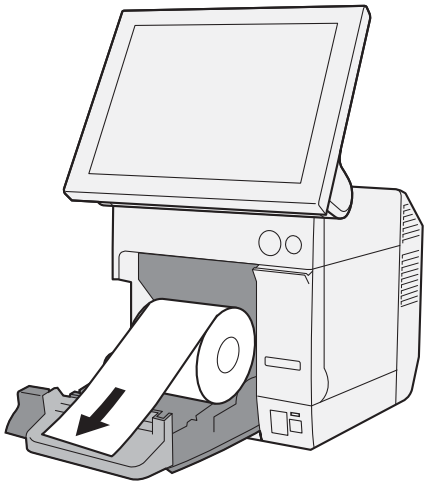
10 Push the roll paper guide on the left in the direction of the arrow, and load the roll paper with the printing side up.



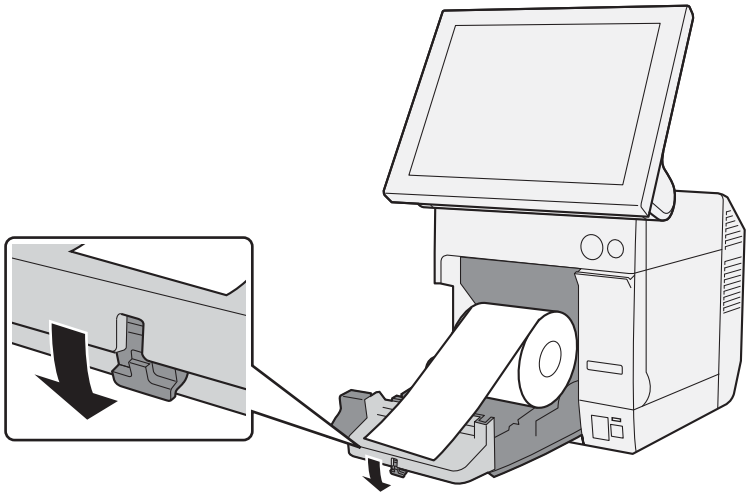
11 Lock the roll paper guide.



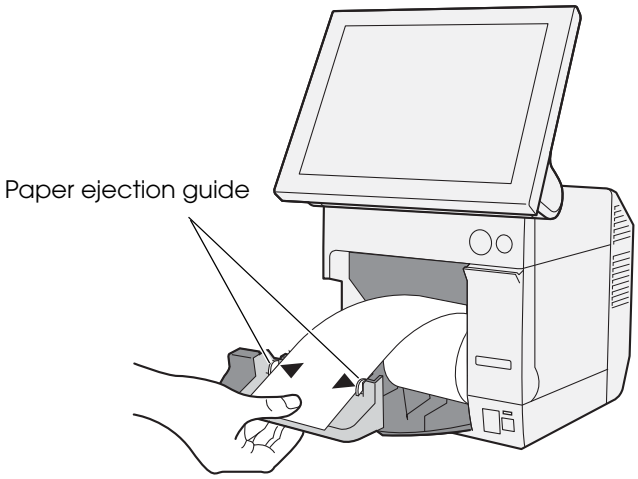
12 Unroll the paper slightly by pulling it forward and insert the roll paper all the way to the back with the printable side up.



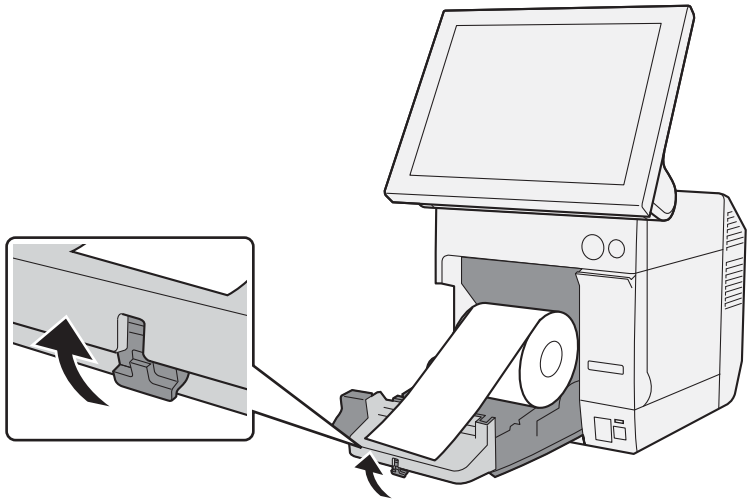
13 Release the lock of the paper ejection guide.



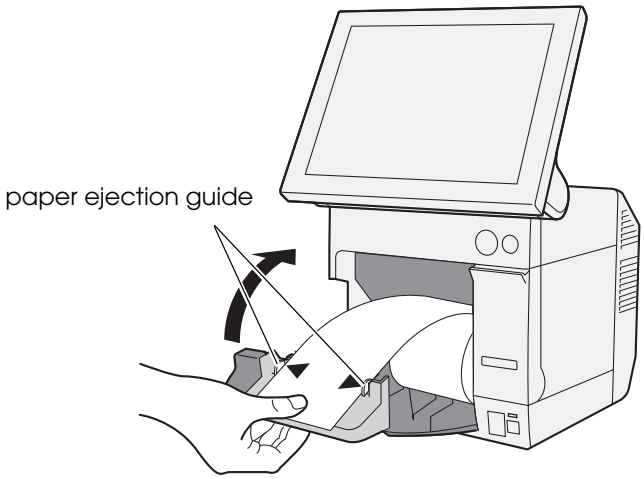
14 Align the paper ejection guide with the roll paper width.



15 Lock the paper ejection guide.



16 Close the roll paper cover while aligning the roll paper with the paper ejection guide.



The roll paper is automatically fed.

This completes the procedure of replacing fanfold paper with roll paper.

Setting the Media Position Detection

When changing to paper of a different type or shape, you will need to set the media position detection. When there is no change in the media position detection setting, this setting is not necessary.

> **CAUTION** If the printer setting and the paper type do not match, printing is not possible and a paper error will occur. Set the settings based on the table below.

Setting Method

Set the media position detection by following the steps below.

> **CAUTION** When paper remains in the printer, media position detection cannot be set. Be sure to remove the paper before turning on the printer.

1. Turn the printer on.
2. Remove the paper in the printer.
3. Display the printer driver window.
   (See "How to Display the Printer Driver" on page 65 for how to display the driver window.)
4. Change (Media position detection) on (Maintenance And Utilities) tab of the printer driver depending on the paper to use.

Paper type	Media position detection setting
Roll paper	
Receipt/Full-page Label/ Transparent Full-page Label	Not applied
Black Mark Die-cut Label	Detects black marks of die-cut label
Black Mark Receipt/Wrist Band	Detects black marks of receipt
Die-cut Label/Black Mark Die-cut Label/ Transparent Die-cut Label	Detects the gap between labels

Paper type		Media position detection setting
Fanfold paper		
	Black Mark Die-cut Label	Detects black marks of die-cut label
	Black Mark Receipt/Wrist Band	Detects black marks of receipt
	Die-cut Label/Black Mark Die-cut Label/ Transparent Die-cut Label	Detects the gap between labels

5 Turn the printer off.

CAUTION	The changed setting of the media position detection is saved in the NV memory of the printer when the printer is turned off. Be sure to turn off the printer to enable the setting.

Head Cleaning

Head cleaning is a function for cleaning the surface of the print head, in order to maintain the print quality. Perform head cleaning if the printout is becoming faint or if there are gaps.

The auto nozzle check function is installed to the printer, and the head is automatically cleaned in the normal operation. However, when Post-Printing Verification Settings, the print result may not be clear or print in the abnormal colors depending on some settings due to the clogging of the print head. Clean the head in that case. Use (maintenance and utilities) function on the printer driver to run head cleaning.

NOTE

- Make settings with [Post-Printing Verification Settings] on [Maintenance And Utilities] tab when dot is missing. (See "Post-Printing Verification Settings" on page 99)
- Ink is consumed in the head cleaning. By performing a nozzle check before performing head cleaning, you can verify if the nozzle is clogged, and prevent extra ink from being consumed in the head cleaning. For details on nozzle check, see "Nozzle Check" on page 165.

Manual Head Cleaning

The printer checks the nozzles, and run an manual head cleaning automatically if clogging occurs.

CAUTION

The ink is used for head cleaning, so if the ink is low, the ink may run out during the cleaning.

Follow the steps below to manual head cleaning.

1. Turn the power on.
2. Display the window on the printer driver.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)
3. Click (Manual Head Cleaning) on (Maintenance And Utilities) tab.
   The printer nozzle is checked and head is automatically cleaned when it is clogged. The cleaning repeats 5 times at the maximum.
4. Execute a nozzle check and check the cleaning result.

Manual Head Cleaning during printing

Normally faint and printing during printing or when it is printed in different colors, you can print the manual head cleaning while paper feed button is pressed. This feature is factory set to invalid. Please enable printer driver. (See "Panel Button Settings" on page 111)

CAUTION

- If the problem starts head cleaning manual paper feed button is pressed during printing, a few seconds Be sure if the paper feed button again.
- This feature can be copied to the printer with other BSF files and PrinterSetting files can not be. You have to be set for each printer.

Nozzle Check

If the nozzle of the print head becomes clogged, the printout may be faint or a different color than usual even when there is ink.
This product has an automatic nozzle check function, and normally, print head cleaning is automatically performed. However, the nozzle may become clogged depending on the Post-Printing Verification settings (p.99).
When a nozzle check is performed, a pattern is printed, and by looking at the pattern, it is possible to verify whether or not the nozzle is clogged.

> **CAUTION** Before performing a nozzle check, be sure to load the label roll paper that was shipped with the product. If paper other than the label roll paper that was shipped with the product is loaded, the nozzle check cannot be performed. For details on how to replace the paper, see "Replacing the Paper" on page 139.

Follow the steps below to check nozzles.

1. Turn the power on.
2. Set the die-cut label, receipt or continuous label which length is 90 mm or more.
3. Display the window on the printer driver.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)
4. Click (Media position detection) on (Maintenance And Utilities) tab and sets the media position detection based on the loaded paper.
5. Click (Nozzle Check).
6. Click (Print).
7. Check the printed nozzle pattern.
   Execute Manual Head Cleaning when it is clogged.

Gap Adjustment

This is for adjusting misalignment in vertical lines and barcodes, and misalignment in paper feeding. Since gap adjustment is performed when the product is shipped from the factory, typically, the customer does not need to perform the adjustment.
If the print position when the print head moves from right to left is misaligned with the print position when the print head moves from left to right, vertical lines may become misaligned or the print result may become blurry. In addition, if the paper feed amount is not adjusted correctly, white bands may appear in the printout or the printout may become overlapped. In such a case, perform gap adjustment.

CAUTION	Before performing gap adjustment, be sure to load the label roll paper that was shipped with the product. If paper other than the label roll paper that was shipped with the product is loaded, the gap adjustment cannot be performed. For details on how to replace paper see "Replacing the Paper" on page 139.
NOTE	When an image or the like is printed, there may be cases where white bands (lines that appear to be white) or black bands (image overlap) may be printed every 2 to 3 cm. This effect can be mitigated by performing gap adjustment, but it cannot be completely eliminated.

Gap Adjustment Operation Procedure

Perform gap adjustment by following the steps below.

1. Turn on the power of the printer.
2. Display the window on the printer driver.
   (See "How to Use the Printer Driver" on page 65 for how to display the driver window.)
3. In the (Driver Utilities) tab, click (Driver Preferences).
4. The "Driver Preferences" screen will be displayed. Check the (Enables The Advanced Function On "Maintenance And Utilities" Tab) checkbox and click (OK).
5. In the (Maintenance And Utilities) tab, click (Print Head Alignment).

For the rest of the procedure, follow the instructions on the screen.

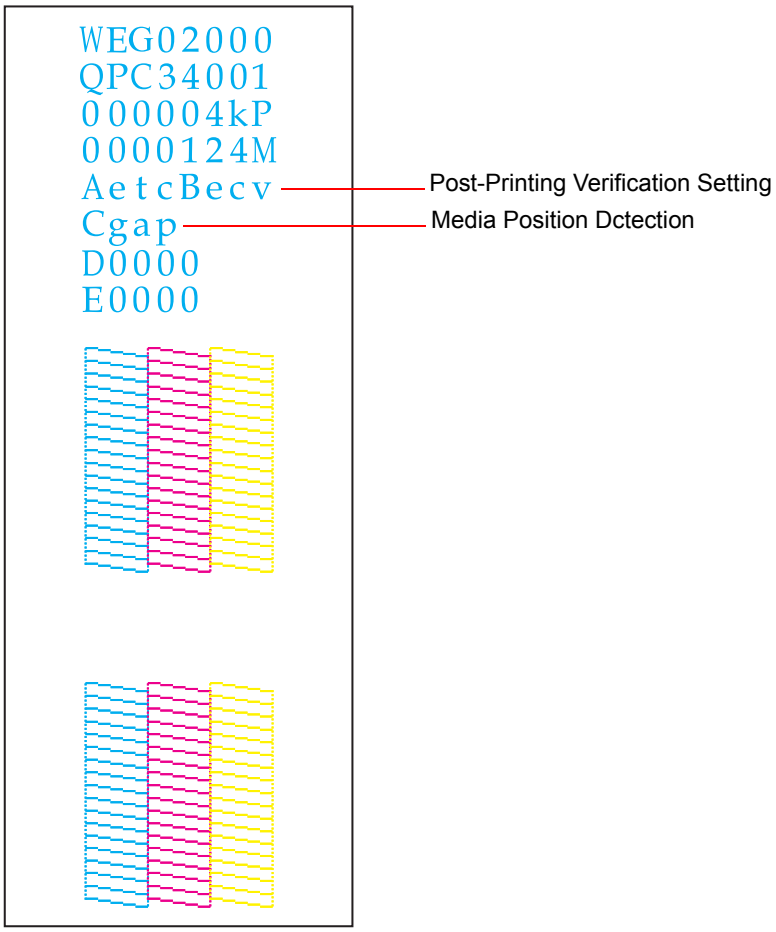
Self-test

Printing errors such as dot missing can be checked on self-test mode. In addition, Post-Printing Verification Settings, and media position detection setting can be checked.
Follow the steps below to run the self-test.

1. Set the die-cut label, receipt or continuous label which length is 90 mm or more.

2. Verify that the printer is off.

3. Turn on the printer while pressing the paper feed button.
   Following test pattern is printed.



Status		Specification
Post-Printing Verification Setting	Aamc Boff	Anti-missing Color Mode
	Aamr Boff	Anti-missing Read Mode
	Ahrr Boff	High Reliability Mode (Reprint)
	Ahrv Boff	High Reliability Mode (Void Image Print)
	Aect Becr	Economy Mode for Low Print Volume (Reprint)
	Aect Becv	Economy Mode for Low Print Volume (Void Image Print)
Media Position Dctection	Cnod	No Detection
	Cbmd	Detect Blackmarks on Die-cut Labels
	Cbmc	Detect Blackmarks on Continuous Paper
	Cgap	Detect Margins Between Labels

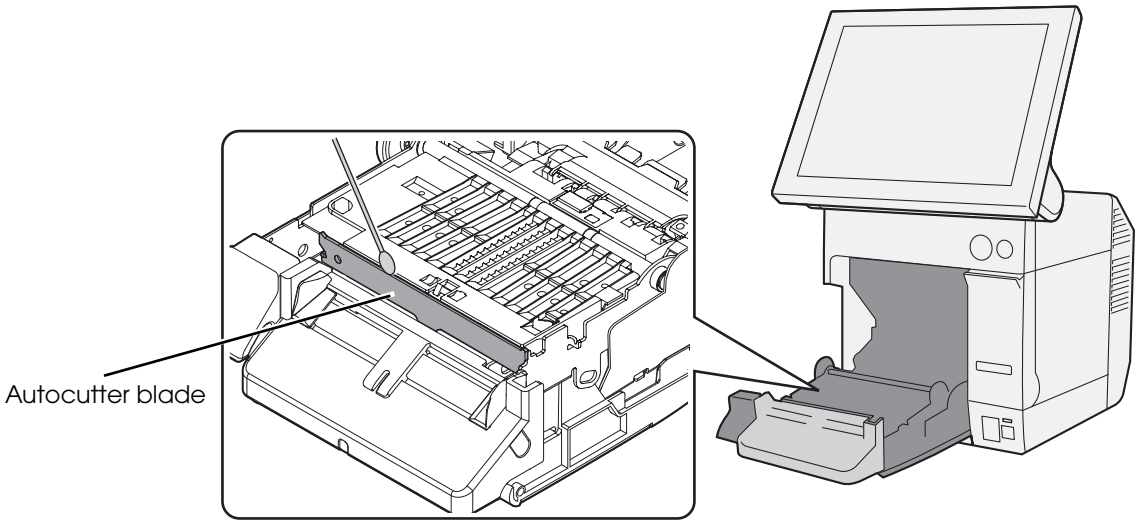
Cleaning the Autocutter

Adhesive from labels may stick to the fixed blade of the autocutter, which may prevent the autocutter from cutting paper cleanly. If this happens, follow the steps below to clean the autocutter.

CAUTION

Do not touch the fixed blade of the autocutter directly. Doing so may cause injury.

1. Turn off the power.
   For details on how to turn off the power, see "Power On/Off" on page 25.
2. Once the power lamp goes off, unplug the power plug from the outlet.
3. Open the roll paper cover to remove the paper.
4. Remove the adhesive on the autocutter blade with an implement such as a cotton swab.
   If necessary, moisten the cotton swab with alcohol.



Exterior Surface Cleaning

To be able to comfortably use the product at any time, clean the product following the method below.

1 Turn off the power.

For details on how to turn off the power, see "Power Off" on page 25.

2 Once the power lamp goes off, unplug the power plug from the outlet.

3 Use a soft cloth to wipe off dust and dirt.

When the exterior surface is very dirty, soak a soft cloth in water that contains a small amount of mild detergent and after wringing the cloth thoroughly, wipe off the dirt with the cloth. When finished, wipe off the moisture with a dry, soft cloth.

CAUTION

- Close the cover before wiping the product so that moisture does not get inside the product. If the interior of the product becomes wet, a short circuit may occur.
- Do not use volatile chemicals such as benzene, paint thinner, alcohol, etc. The surface or interior of the product may become distorted or deformed.
- Do not use a hard brush. It may scratch the surface of the product.

4 Plug the power plug into the outlet and turn on the power.

Preparing for Transport

Follow the steps below to transport the printer.

CAUTION

Do not take the ink cartridge out of the printer when transporting it.
Do not leave the printer without ink cartridge. Doing so may result in drying print head and clogging.

1. Turn the power off.
2. Verify that the power lamp is off.
3. Remove the paper.
4. Pack the printer upright.

Managing the Printer Driver / Printer Settings

This section provides information necessary for managing the printer driver / printer.

❏ Printer Driver Functions (p.172)

❏ Upgrading the Printer Driver (p.173)

❏ Destination for the Printer Driver Setting (p.174)

❏ Printer Setting (p.175)

Printer Driver Functions

The TM-C3400 printer driver has the following functions.

❏ Printing

❏ Printer driver settings

- Print setting
- Favorite setting
- User defined setting
- Printer driver operation setting
- Settings for the EPSON Status Monitor 3

❏ Saving/importing the printer driver settings

The print setting, the favorite setting, the user defined setting, operation setting of the printer driver can be exported in a BSF file (extension: ".BSF"). Also, the printer driver setting can be made by importing the settings from the BSF file.

> **CAUTION**
>
> Export in a BSF file from the current setting. If you export it from the general setting, a different content will be exported.
>
> Current setting:
>
> Properties of the printer driver-[General]-[Printing References]-[Driver Utilities]-[Import/Export Settings]
>
> General setting:
>
> Properties of the printer driver-[Advanced]-[Printing Defaults]-[Driver Utilities]-[Import/Export Settings]

❏ Printer setting

- Setting for printing
- Setting for maintenance
- With another tool, Printer Setting, you can export and import the printer setting file.

Upgrading the Printer Driver

When the printer driver is upgraded to a higher version, the printer driver settings revert to the default settings and the existing settings are lost. Follow the steps below retain the existing settings.

1 Save the existing printer driver settings to a BSF file. (p.172)

2 Upgrade the printer driver. Execute the package file of the new printer driver to upgrade the printer driver.

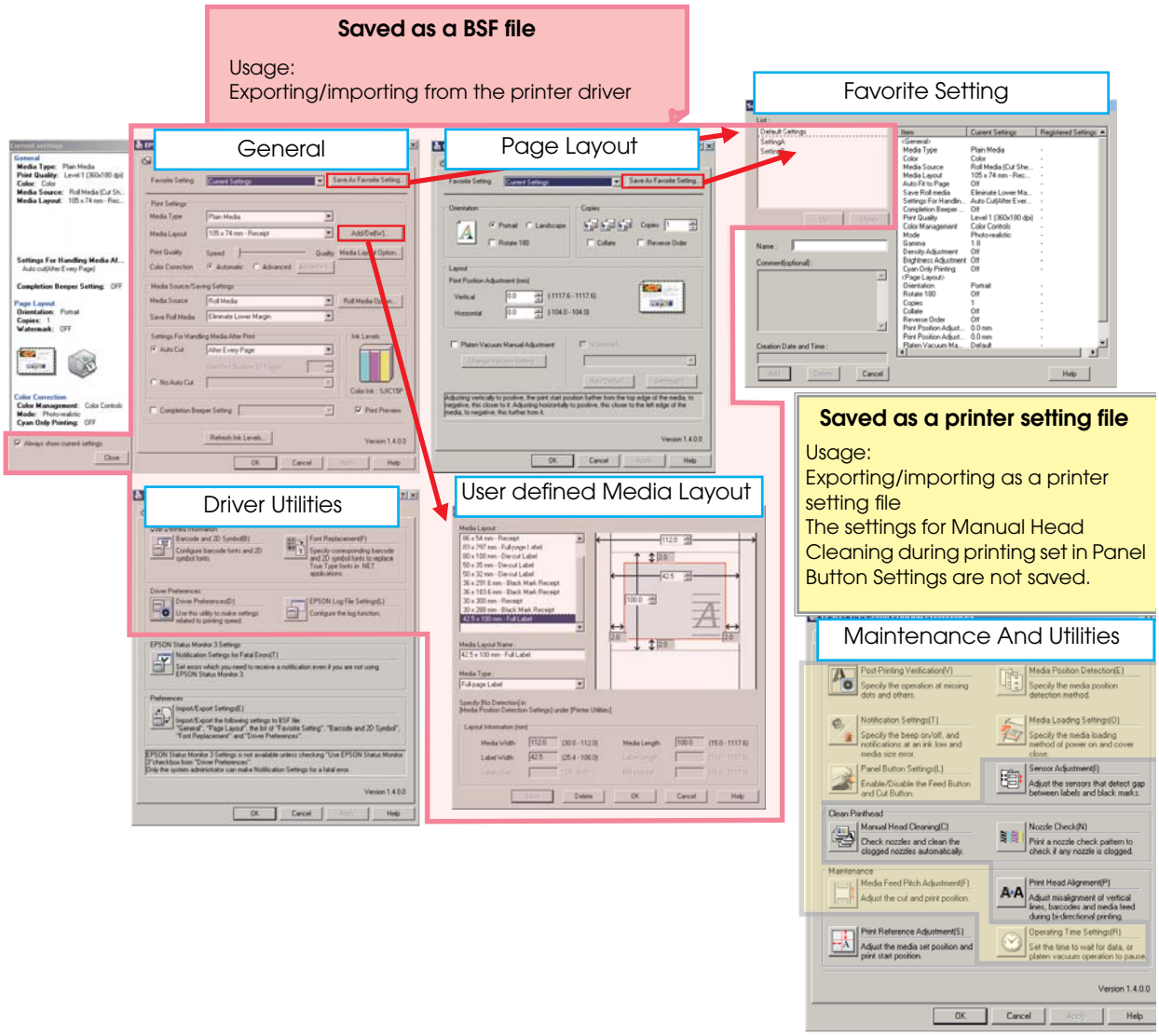
> NOTE
> Download the latest printer driver from the company's web site (p.125).

3 Import the settings in the BSF file into the printer driver. (p.172)

> NOTE
> If the BSF file has been previously saved, import the BSF file again after upgrading the printer driver. (p.172)

Destination for the Printer Driver Setting

Following printer driver settings can be saved in a file.


Saved as a BSF file
Usage:
Exporting/importing from the printer driver
General
Page Layout
Favorite Setting
Driver Utilities
User defined Media Layout
Saved as a printer setting file
Usage:
Exporting/importing as a printer setting file
The settings for Manual Head Cleaning during printing set in Panel Button Settings are not saved.
Maintenance And Utilities

Printer Setting

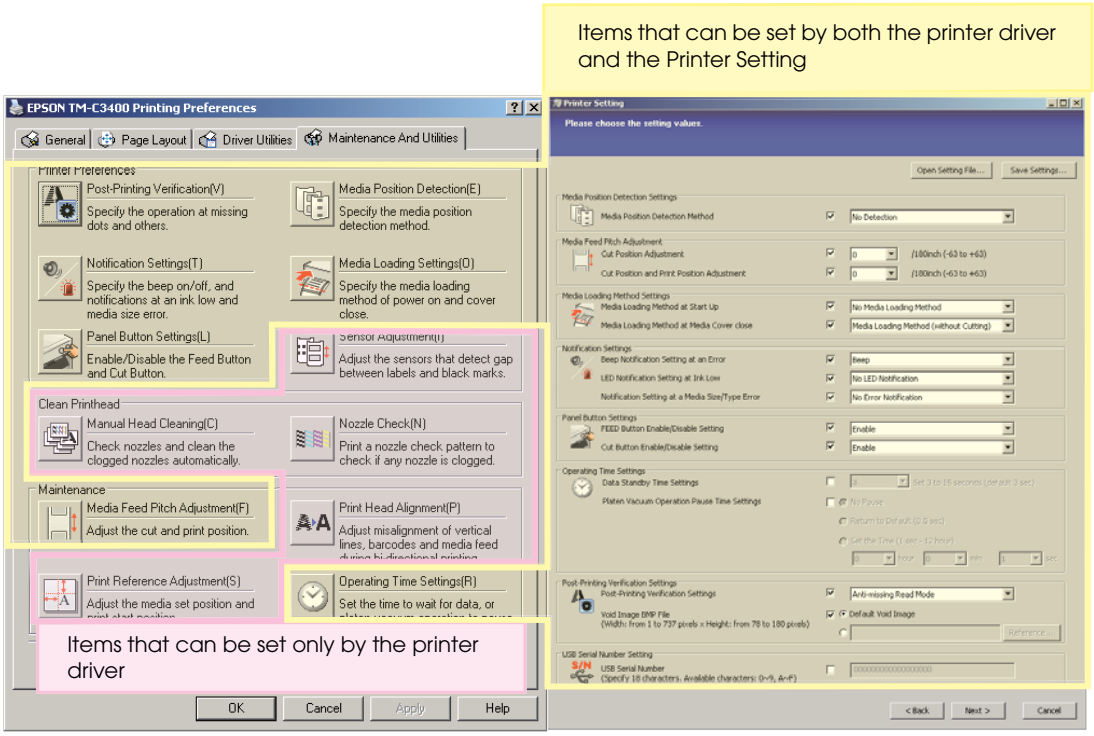
Make a printer setting in the following cases.

- When the paper type is changed
  The media position detection setting is necessary.
  (See "Setting the Media Position Detection" on page 161.)
- When printer maintenance, such as Head Cleaning or Print Head Alignment, is necessary

The printer setting is made by the printer driver and the Printer Setting.

Item	Printer Driver	Printer Setting
Installation of the Printer Setting to the computer	Unnecessary	Necessary
Reference of the printer setting	-	√
Making settings to the printer	√	√
Print position adjustment, Head Cleaning	√	-
Saving the printer setting to the setting file	-	√
Importing the settings from the setting file	-	√
Copying the settings to other printer	-	√
Making the same settings to multiple printers	-	√
Selecting the Void Image	√	√
Specifying the Void Image file	-	√

Setting items of the printer driver and the Printer Setting


Items that can be set by both the printer driver and the Printer Setting
EPSON TM-C3400 Printing Preferences
General
Page Layout
Driver Utilities
Maintenance And Utilities
Printer Preferences
Post-Printing Verification(V)
Specify the operation at missing dots and others.
Media Position Detection(E)
Specify the media position detection method.
Notification Settings(T)
Specify the beep on/off, and notifications at an ink low and media size error.
Media Loading Settings(O)
Specify the media loading method of power on and cover close.
Panel Button Settings(L)
Enable/Disable the Feed Button and Cut Button.
Adjust the sensors that detect gap between labels and black marks.
Clean Printhead
Manual Head Cleaning(C)
Check nozzles and clean the clogged nozzles automatically.
Nozzle Check(N)
Print a nozzle check pattern to check if any nozzle is clogged.
Maintenance
Media Feed Pitch Adjustment(F)
Adjust the cut and print position.
Print Head Alignment(P)
Adjust misalignment of vertical lines, barcodes and media feed
Print Reference Adjustment(S)
Adjust the media set position and
Operating Time Settings(R)
Set the time to wait for data, or
Items that can be set only by the printer driver
OK
Cancel
Apply
Help
Printer Setting
Please choose the setting values.
Open Setting File...
Save Settings...
Media Position Detection Settings
Media Position Detection Method
No Detection
Media Feed Pitch Adjustment
Cut Position Adjustment
Cut Position and Print Position Adjustment
Media Loading Method Settings
Media Loading Method at Start Up
No Media Loading Method
Media Loading Method at Media Cover close
Media Loading Method (without Cutting)
Notification Settings
Beep Notification Setting at an Error
Beep
LED Notification Setting at Ink Low
No LED Notification
Notification Setting at a Media Size/Type Error
No Error Notification
Panel Button Settings
FEED Button Enable/Disable Setting
Enable
Cut Button Enable/Disable Setting
Enable
Operating Time Settings
Data Standby Time Settings
Platen Vacuum Operation Pause Time Settings
Post-Printing Verification Settings
Post-Printing Verification Settings
Anti-missing Read Mode
Default Void Image
USB Serial Number Setting
USB Serial Number
< Back
Next >
Cancel

* The settings for Manual Head Cleaning during printing that can be set in Panel Button Settings cannot be set in Printer Setting.

To Customers who Plan to Keep the Product in Operation 24 Hours a Day

We do not recommend keeping the product in operation 24 hours a day since it will reduce the life of the product. In particular, this usage is outside the specifications of the hard disk. If it is unavoidable to keep the product in operation 24 hours a day, stop the motor rotation when the product is idle by following the steps below.

NOTE

Continuous 24-hour operation is not guaranteed even if the motor is stopped.

Setting the Hard Disk Motor to Stop

To stop the hard disk motor, set the HDD Power Down Timer setting and Windows Update setting. Under the following conditions, even if you set the hard disk motor to stop, the motor will not stop.

- ❏ If due to the application's operations the hard disk does not change to standby mode (i.e. become idle).
- ❏ When the HDD Power Down Timer is set to 1 hour or more, since Windows will periodically access the hard disk to synchronize the timer, the hard disk motor will not stop.

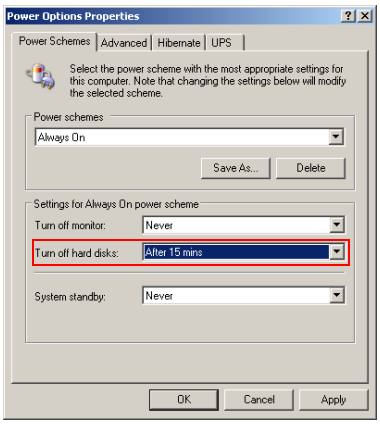
Setting the HDD Power Down Timer

When this timer is set, access to the hard disk is monitored, and when there is no access during the set period of time, the hard disk motor is stopped.

Immediately after setup (p.35) / recovery (p.53), this is set to (None) and the motor is set to keep running, thus the following needs to be set.

1. Select (Start) - (Control Panel)
2. Start Power Options and select the (Power Schemes) tab.

3 Set (Turn off hard disks). Click the (OK) button.



NOTE

If the hard disk is accessed during the set period of time, the motor will not stop.

Setting Windows Update

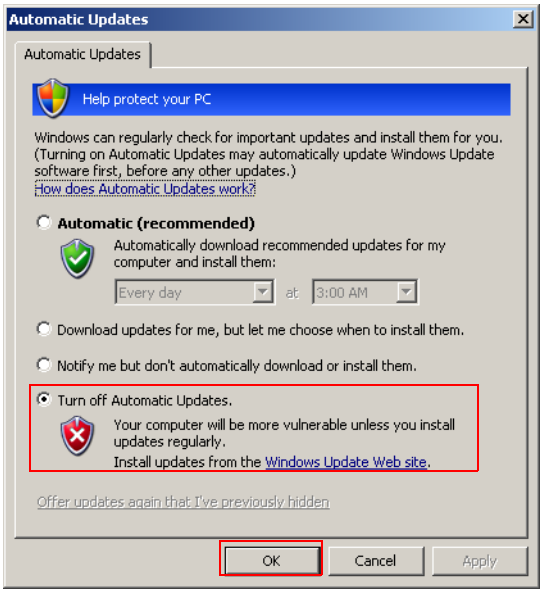
When Windows Update (Automatic Updates) is set, the HDD is periodically accessed, and it will not become idle, thus change this feature to disabled.

Immediately after setup (p.53) / recovery (p.35), Automatic Updates is not set. If a login user is added, the conditions that are set with Administrator privileges are inherited. If Windows Update (Automatic Updates) is enabled, follow the steps below to disable it.

1 Select (Start) - (Control Panel).

2 Start Automatic Updates.

3 Select (Turn off Automatic Updates). Click the (OK) button.


Automatic Updates
Automatic Updates
Help protect your PC
Windows can regularly check for important updates and install them for you. (Turning on Automatic Updates may automatically update Windows Update software first, before any other updates.)
How does Automatic Updates work?
Automatic (recommended)
Automatically download recommended updates for my computer and install them:
Every day
at
3:00 AM
Download updates for me, but let me choose when to install them.
Notify me but don't automatically download or install them.
Turn off Automatic Updates.
Your computer will be more vulnerable unless you install updates regularly.
Install updates from the Windows Update Web site.
Offer updates again that I've previously hidden
OK
Cancel
Apply

Restrictions

Paper

- When using a full-page label, remove the ejected label each time the printing is finished. Otherwise, a part of printed label may be cut, or a cutter error may occur.
- When cutting the full-page label, adhesive from labels may stick to the fixed blade of the autocutter, which may prevent the autocutter from cutting paper cleanly. If this happens, clean the cutter blade. For details, see "Cleaning the Autocutter" on page 169.

Printing

- If the power of the printer is turned off and on after printing, it may take time to start the next printing.
- The ink cartridge contains 3 colors of ink. Even when one particular color is specified, all 3 colors of ink are used for printing and for keeping the print head in good condition. When the ink level of even one color reaches the lowest limit, the printer stops printing.
- The colors of printouts may become abnormal if you tilt this printer or subject the printer to any shocks. When you move this printer after ink charging, check the colors by performing a test print.
  If the colors of printouts are not normal, perform head cleaning. See "Manual Head Cleaning" on page 163 for how to perform head cleaning.
- When printing image data, white lines (lines shown in white) or black lines (overlapping of image) may appear at about 1 inch intervals in the print result. By setting (Print Head Alignment) - (Media Feed Adjustment) in (Maintenance And Utilities) tab, this can be reduced but cannot be removed completely.
- When printing image data, change of color tone may appear at 1 inch intervals in the print result.

Appendix

Problems and Solutions

NOTE

- When an error occurs, a message is displayed onscreen. Follow the instructions in the message to fix the error.
- If the error persists even after countermeasures are taken, contact your dealer. Verify the product name and serial number before contacting your dealer.

Power On / Off Problems

Symptoms / Problem Condition	Verification Method / Countermeasures
Power does not turn on (Power lamp does not light up)	**Try holding down the power switch a little longer.**
	Is the power plug connected to the outlet? Verify that the plug is not loose and that it is not plugged in at an angle.
	Are you using a power tap, etc.? Connect the power plug directly into the outlet on the wall.
	Is power being supplied to the outlet? Plug another electronic product into the outlet and verify that power turns on.
Power does not turn off	**Is the power switch set so that it cannot be used to turn off the power?** Shut down Windows. If the power still does not turn off, unplug the power plug from the outlet. After you do this, turn the power on again and then use the power switch (or use Windows shutdown) to turn the power off. Otherwise, the print head may dry up and become clogged.

Screen Control Problems

Symptoms / Problem Condition	Verification Method / Countermeasures
There is no response even if you touch the touch panel.	**Take the following countermeasures.** If the product does not respond even if you touch the screen, take the following countermeasures. 1. Wait one minute and touch the touch panel again. 2. If the product still does not respond, unplug the power plug from the outlet and wait 10 seconds. 3. Plug the power plug into the outlet and turn the power on.

Printout is Not Satisfactory

Symptoms / Problem Condition	Verification Method / Countermeasures
• **Is faint** • **Contains bands or lines** • **Is blurry** • **Sentences and lines are misaligned** • **Colors look incorrect** • **Some colors are not printed** • **Color is uneven** • **Is obscured** • **Is rough** • **Contains white bands** • **Is overlapp**ed	**Is the print head nozzle clogged?** Verify the status of the print head by performing a nozzle check, and if the nozzle is clogged, perform head cleaning. For details, see below. • Nozzle Check (p.165) • Manual Head Cleaning (p.163)
	Are you using the recommended ink cartridge (i.e. genuine Epson product)? This product is color adjusted assuming the use of a genuine Epson ink cartridge. If an ink cartridge other than a genuine Epson ink cartridge is used, the print quality may be poor. We recommend the use of a genuine Epson ink cartridge.
	Are you using an old ink cartridge? When an old ink cartridge is used, the print quality may be poor. The expiration date of an ink cartridge is indicated on the individual package of the ink cartridge.
	Is the print head gap misaligned? To enable high-speed printing, in this product, ink is discharged both when the print head moves to the right and when it moves to the left. In rare occasions, the print position when the head moves from right to left becomes misaligned from the print position when the head moves from left to right, and as a result vertical lines may become misaligned or the print result may become blurry. Use the gap adjustment function to verify and adjust the gap misalignment. For details, see "Gap Adjustment" on page 166.
	Is the paper feed amount correctly adjusted? If the paper feed amount is too large, white bands may appear in the printout, and when it is too small, the printout may become overlapped. Use the gap adjustment function to verify and adjust the paper feed amount. For details, see "Gap Adjustment" on page 166.

Paper is Not Cut Cleanly

Symptoms / Problem Condition	Verification Method / Countermeasures
Paper is Not Cut Cleanly	**Is the autocutter dirty?** If the fixed blade of the autocutter is dirty, clean the blade. For details, see "Cleaning the Autocutter" on page 169.

Cannot Read Barcode

Symptoms / Problem Condition	Verification Method / Countermeasures
Barcode cannot be read	**Is the barcode reader properly connected?** Verify that the barcode reader is properly connected to a USB connector on the rear of the product. For details, see "Connecting the Cable" on page 37.
	If the print data contains the graphic data of a barcode, is the barcode reduced? If the barcode is reduced, lines may be faint and spaces may be crushed, and as a result, it may not be read correctly.
	Is the barcode difficult to read? Print the barcode in cyan only. For details, see "Printing the barcode in cyan only" on page 83.

Product Specifications

Basic Specifications

CPU		Intel® AtomE640 1.0GHz
Main memory		1GB
Chip set		Intel® EG20T
BIOS		TMI-A 1.01
OS		Microsoft® Windows Embedded POS Ready 2009
Display function	LCD	12.1" TFT LCD
		256K colors (Approx. 260000)
	Touch panel	Resistance film
Backing storage (HDD)		Built-in SATA 250GB HDD
Interface	LAN	10BASE-T/100BASE-TX/1000BASE-TX
	USB	Front Side:USB2.0(High/Full/Low speed) Type x 2 Back Side:USB2.0(High/Full/Low speed) Type x 3
	Sound	External line output
Ink cartridge(Model number:SJIC15P)		3-color(CMY) exclusive integrated ink cartridge
Power supply		AC 100 to 240V/ 50 to 60Hz
Power consumption	Operating	Average approx. 51.6W, Max. 62.3W
	Standby	Average 26.7W
	Power off	Average 1.5W
Temperatures/ humidity (See "Environmental Conditions" on page 189 for details.)	Operating	0 to 40°C, 20 to 80%RH (no condensation)
	Storage (Ink loaded)	-20 to 40°C, 20 to 80%RH (no condensation) • -20°C: up to 120 hours • 0 to 30°C: up to 6 months • 40°C: up to a month
Overall dimensions (H × W × D)		300 × 312 × 345 mm (excluding protrusions)
Weight (mass)		Approximately 15.4 kg

Printing Specifications

Printing method		Serial ink jet, dot matrix Three-color (CMY) printing
Print direction		Bi-directional printing
Paper feed		Forward and reverse friction feed
Paper width	Roll paper	Receipt :30 to 108 mm Full-page Label :30 to 112 mm Die-cut Label :30 to 112 mm
	Fanfold paper	Receipt :50 to 108 mm Die-cut Label :50 to 112 mm
Printable width		Maximum 104 mm, Maximum 1474 position (360dpi)
Print speed* (Input resolution:180 x 180dpi, Image resolution:360 x 180dpi)		Label width 50 mm :99mm/s Label width 72 mm :85mm/s Label width 80 mm :80mm/s Label width 100 mm :71mm/s
Barcode Barcode identification rate:ANSI rank D (based on Seiko Epson Corporation standard)		UPC-A, UPC-E, JAN 8 (EAN 8), JAN 13 (EAN 13), Code 39, ITF, Codabar, Code 93, Code 128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded
Two-dimensional code		PDF417, QR code, Maxi Code, S1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked, Composite Symbology, DataMatrix, Aztec

dpi : dots per 25.4 mm (dots per inch)

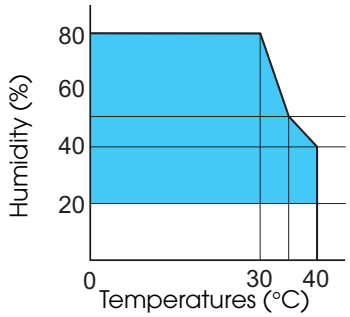
*:Print Quality:Speed/Media Type:Plain Media

Reliability

MTBF	Overall product	47,500 hours
	Each component board	170,000 hours
	Printer	75,000 hours
MCBF(Printer)		9,800,000 passes
Life(Printer)	Print head	6,000 million shots/nozzle
	Paper feed mechanism	1,500,000 pages or the number of pages that reaches the following paper length fed. • Plain Media: 150 km • Fine Media: 75 km • PET Film: 50 km • Continuous label paper (Plain Media): 100 km • Continuous label paper (Fine Media): 50 km • Continuous label paper (Synthetic Media): 10 km • Die-cut label (Plain Media): 150 km • Die-cut label (Fine Media): 150 km • Die-cut label (Synthetic Media): 50 km • Wrist band (8000-11-PDL): 60 km
	Autocutter mechanism	• Plain Media: 1,500,000 cuts • Fine Media: 750,000 cuts • PET Film: 500,000 cuts • Continuous label (Plain Media): 750,000 cuts (Add extra 250,000 cuts with cleaning the cutter blade) • Continuous label (Fine Media): 500,000 cuts • Continuous label (Synthetic Media): 100,000 cuts • Die-cut label backing paper (Plain Media): 1,500,000 cuts • Die-cut label backing paper (Fine Media): 1,500,000 cuts • Die-cut label backing paper (Synthetic Media): 500,000 cuts • Wrist band (8000-11-PDL): 200,000 cuts
	Carriage mechanism	6 million passes (3 million carriage returns) Maintenance is requested when it reaches 20,000,000 passes (the printer will stop)

Fan (Time until its rotation frequency drops by 30%)	System fan	50,000 hours (ambient temperature 25°C)
	System power fan	
	Printer unit power fan	
HDD		Either 5 years or 20,000-hour power-on total (24-hour continuous operation is not warrantable.)
LCD back light (Time until the brightness drops by 50%)		30,000 hours or longer (25±2°C)
Touch panel		Tap durability: 10 million times or more (Tap on the same position with a polyacetal pen (tip: R0.8) with writing pressure of 2.45 N {250 gf}.)

Environmental Conditions

Temperatures/ humidity	Operating	0 to 40°C, 20 to 80%RH (no condensation) 
	Storage	When packed (ink not loaded): -20 to 60°C, 5 to 85%RH (no condensation) -20°C or 60°C: up to 120 hours Ink loaded: -20 to 40°C -20°C: up to 120 hours 0 to 30°C: up to 6 months 40°C: up to a month
Pressure (elevation)	Operating	850 to 1060 hPa (approximately 0 to 1500 m above sea level)
	Not operating (including in transportation)	850 to 1060 hPa (approximately 0 to 1500 m above sea level)
Acoustic noise	During operation (including using the autocutter)	Approximately54 dB (ANSI Bystander position) (Based on Epson evaluation conditions including the use of the autocutter)

Paper Specifications

The following is the type and the size of paper specified for this printer.
When using paper other than specified paper, paper feed accuracy, barcode detection accuracy, printing quality may be degraded or frequent paper jam may occur.

Paper type	Category	Form	Width
Receipt (Continuous paper)	Plain Media Fine Media PET Film	Roll paper	30 to 108 mm {1.18 to 4.25"} (Paper width)
Black Mark Receipt (Continuous paper with black marks)	Plain Media Fine Media PET Film	Roll paper	30 to 108 mm {1.18 to 4.25"} (Paper width)
Black Mark Receipt (Continuous paper with black marks)	Plain Media Fine Media PET Film	Fanfold paper	50 to 108 mm {1.97 to 4.25"} (Paper width)
Full-page Label	Plain Media Label Fine Media Label Synthetic Media Label	Roll paper	25.4 to 108 mm {1 to 4.25"} (Label width)
Die-cut Label	Plain Media Label Fine Media Label Synthetic Media Label	Roll paper	25.4 to 108 mm {1 to 4.25"} (Label width)
Black Mark Die-cut Label (Die-cut label with black marks)	Plain Media Label Fine Media Label	Roll paper	25.4 to 108 mm {1 to 4.25"} (Label width)
Black Mark Die-cut Label (Die-cut label with black marks)	Plain Media Label Fine Media Label	Fanfold paper	46 to 108 mm {1.81 to 4.25"} (Label width)
Wrist Band	Synthetic Media	Roll paper	30 mm {1.18"} 28.6 mm (Paper width)

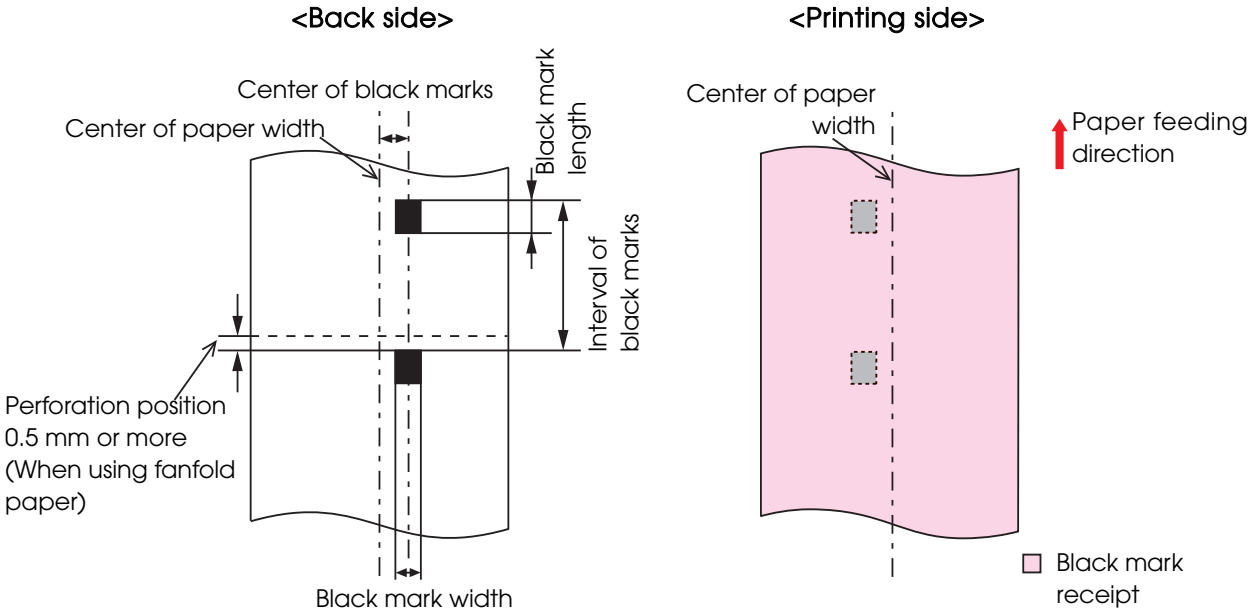
Receipt

This is continuous paper.

Paper type	Plain Media, Fine Media, PET Film
Form	Roll paper
Paper width	30 to 108 mm
Paper length	15 to 1117.6 mm
Paper thickness	0.085 to 0.151 mm
Roll paper core	Outside diameter: 44.1 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.

CAUTION Do not use the paper with a hole or cutout.

Black Mark Receipt



Paper type	Plain Media, Fine Media, PET Film
Form	Roll paper
Paper width	30 to 108 mm
Paper length	15 to 1117.6 mm
Black mark width	13 mm or more
Black mark length	5 mm or more
Black mark centering position	8.5 ± 1 mm
Black mark interval	15 to 1117.6 mm
Paper thickness	0.085 to 0.151 mm
Roll paper core	Outside diameter: 44.1 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.

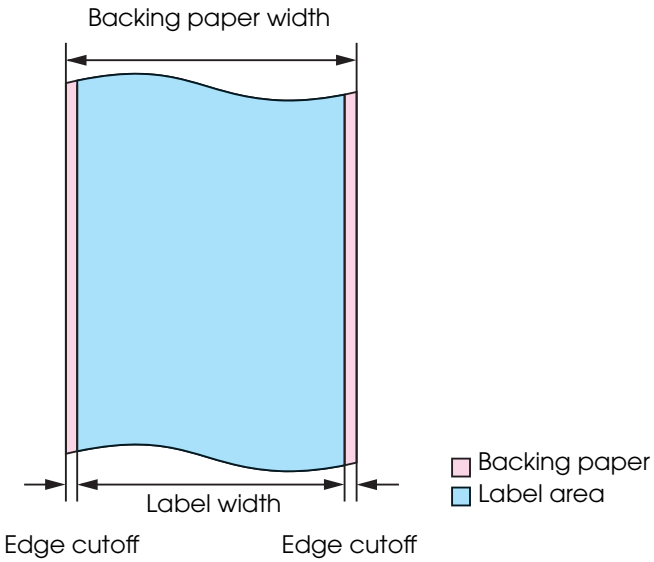
CAUTION Do not use the paper with a hole or cutout.

Paper type	Plain Media, Fine Media, PET Film
Form	Fanfold paper
Paper width	50 to 108 mm
Paper length	15 to 304.8 mm
Black mark width	13 mm or more
Black mark length	5 mm or more
Black mark centering position	8.5 ± 1 mm
Black mark interval	15 to 304.8 mm
Paper thickness	0.119 to 0.151 mm
Pitch of perforated line:	203.2 to 304.8 mm
Form of perforated line	Plain media : 1 mm uncut, 5 mm cut Fine media : 1 mm uncut, 5 mm cut PET film : 0.6 mm uncut, 8.4 mm cut
Number of folds	500 or less

CAUTION

- Do not use the paper with a hole or cutout.
- When using fanfold paper, the black marks must be at least 0.5 mm from the perforated lines.
- Make sure to keep the same position of the black marks to the perforated lines (position that can be detected by black mark sensor) when inserting the paper from either side in order to use the paper inserting from reverse direction.

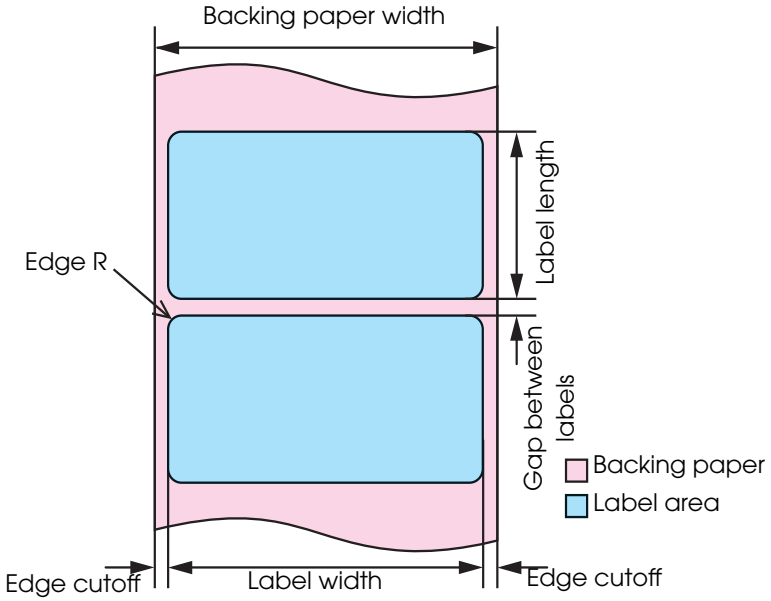
Full-page Label



Paper type	Plain Media Label, Fine Media Label, Synthetic Media Label
Form	Roll paper
Backing paper width	30 to 112 mm
Label width	25.4 to 108 mm
Label length	15 to 1117.6 mm
Edge cutoff on left/right side	2 ± 0.5 mm
Paper thickness	0.128 to 0.195 mm
Roll paper core	Outside diameter: 44.1 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.

CAUTION Do not use the paper with a hole or cutout.

Die-cut Label



Paper type	Plain Media Label
Form	Roll paper
Backing paper width	30 to 112 mm
Label width	25.4 to 108 mm
Label length	25.4 to 1117.6 mm (To use a label with a label length of 25.4 mm or less, see descriptions for Black Mark Die-cut Label.)
Gap between labels	3 to 6 mm
Edge cutoff on left/right side	2 ± 0.5 mm
Label edge R	2 mm or less
Paper thickness	0.128 mm
Roll paper core	Outside diameter: 44.1 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.

CAUTION	Do not use the paper with a hole or cutout.

Paper type	Fine Media
Form	Roll paper
Backing paper width	30 to 112 mm
Label width	25.4 to 108 mm
Label length	25.4 to 1117.6 mm (To use a label with a label length of 25.4 mm or less, see descriptions for Black Mark Die-cut Label.)
Gap between labels	3 to 6 mm
Edge cutoff on left/right side	2 ± 0.5 mm
Label edge R	2 mm or less
Paper thickness	0.145 mm
Roll paper core	Outside diameter: 56.8 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.

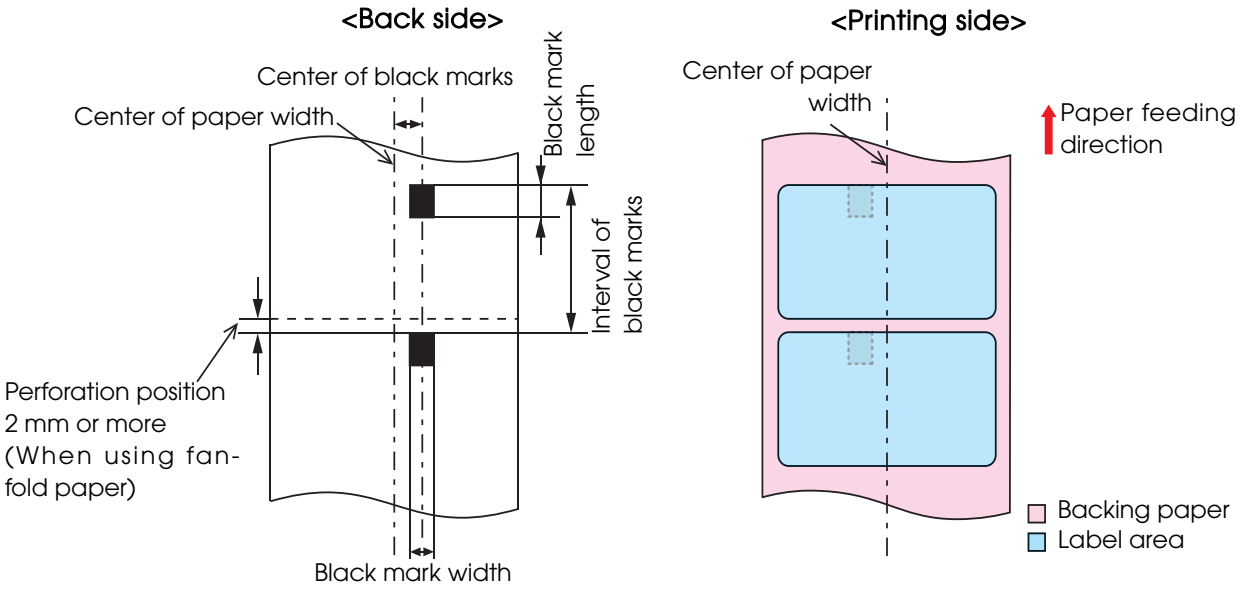
CAUTION

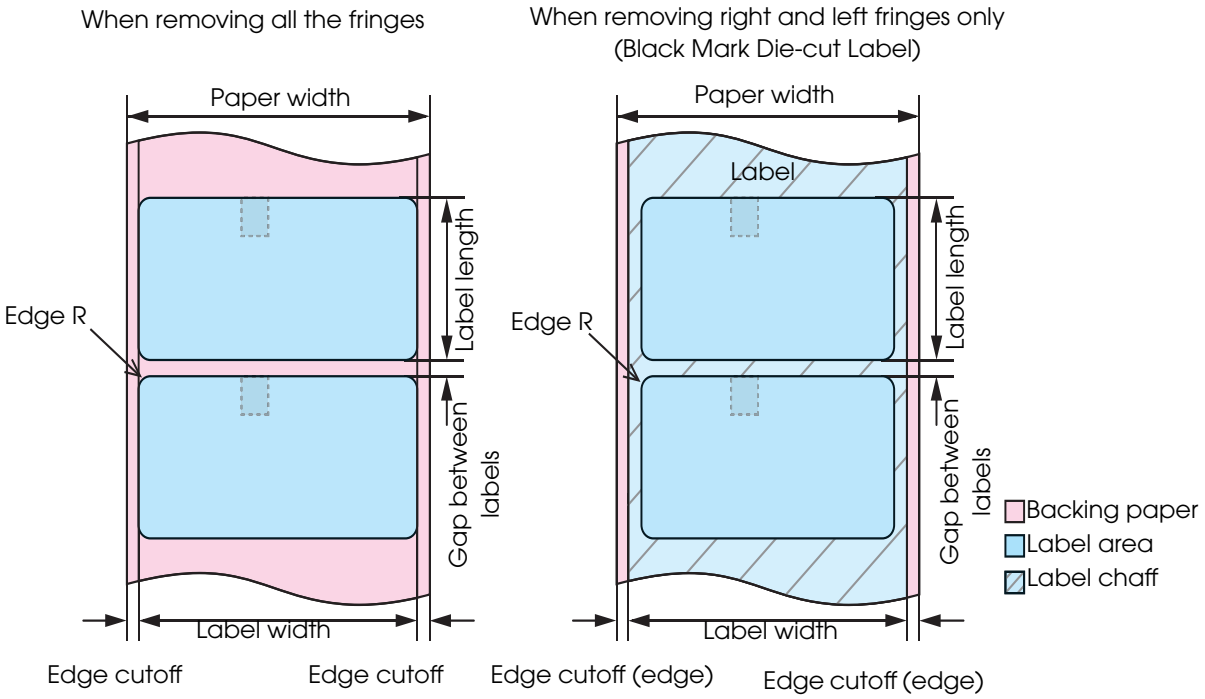
Do not use the paper with a hole or cutout.

Paper type	Synthetic Media Label
Form	Roll paper
Backing paper width	30 to 112 mm
Label width	25.4 to 108 mm
Label length	With the roll paper core of 44.1 mm or more: 50.8 to 1117.6 mm With the roll paper core of 56.8 mm or more: 32 to 1117.6 mm (To use a label with a label length of less than the above-mentioned, see descriptions for Black Mark Die-cut Label.)
Gap between labels	3 to 6 mm
Edge cutoff on left/right side	2 ± 0.5 mm
Label edge R	2 mm or less
Paper thickness	0.195 mm
Roll paper core	Outside diameter: 44.1 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.

CAUTION	Do not use the paper with a hole or cutout.

Black Mark Die-cut Label





Paper type	Plain Media
Form	Roll paper
Backing paper width	30 to 112 mm
Label width	25.4 to 108 mm
Label length	25.4 to 1117.6 mm (For the label length of 15 to less than 25.4 mm, use paper whose outer edges are removed only on the right and left.)
Gap between labels	3 to 6 mm
Edge cutoff on left/right side	2 ± 0.5 mm
Label edge R	2 mm or less
Black mark width	13 mm or more
Black mark length	5 mm or more
Black mark centering position	8.5 ± 1 mm
Black mark interval	15 to 1117.6 mm
Paper thickness	0.128 mm
Roll paper core	Outside diameter: 44.1 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.

CAUTION

- Do not use the paper with a hole or cutout.
- when using this type of paper, the label end and the black mark end of the black mark position on the die-cut label must be matched.

Paper type	Fine Media Label
Form	Roll paper
Backing paper width	30 to 112 mm
Label width	25.4 to 108 mm
Label length	25.4 to 1117.6 mm (For the label length of 15 to less than 25.4 mm, use paper whose outer edges are removed only on the right and left.)
Gap between labels	3 to 6 mm
Edge cutoff on left/right side	2 ± 0.5 mm
Label edge R	2 mm or less
Black mark width	13 mm or more
Black mark length	5 mm or more
Black mark centering position	8.5 ± 1 mm
Black mark interval	15 to 1117.6 mm
Paper thickness	0.145 mm
Roll paper core	Outside diameter: 56.8 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.

CAUTION

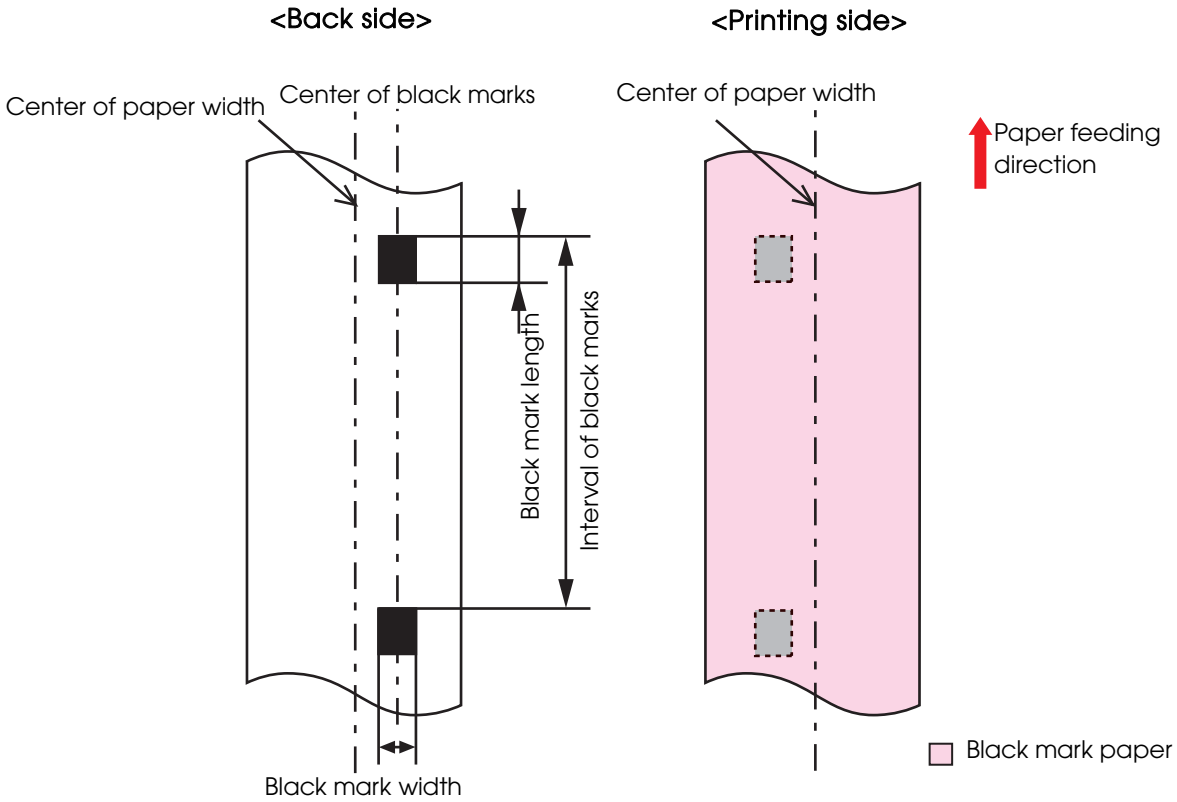
- Do not use the paper with a hole or cutout.
- when using this type of paper, the label end and the black mark end of the black mark position on the die-cut label must be matched.

Paper type	Plain Media Label, Fine Media Label
Form	Fanfold paper
Backing paper width	50 to 112 mm
Label width	46 to 108 mm
Label length	15 to 301.8 mm
Gap between labels	3 to 6 mm
Edge cutoff on left/right side	2 ± 0.5 mm
Label edge R	2 mm or less
Black mark width	13 mm or more
Black mark length	5 mm or more
Black mark centering position	8.5 ± 1 mm
Black mark interval	15 to 304.8 mm
Paper thickness	0.145 to 0.161 mm
Perforated line pitch:	203.2 to 304.8 mm
Perforated line form:	Plain media label : 1 mm uncut, 5 mm cut Fine media label : 1 mm uncut, 5 mm cut Synthetic media label :
Number of folds:	500 or less

CAUTION

- Do not use the paper with a hole or cutout.
- When using fanfold paper, the black marks must be at least 2 mm from the perforated lines.
- when using this type of paper, the label end and the black mark end of the black mark position on the die-cut label must be matched.
- Make sure to keep the same position of the black marks to the perforated lines (position that can be detected by black mark sensor) when inserting the paper from either side in order to use the paper inserting from reverse direction.

Wrist Band

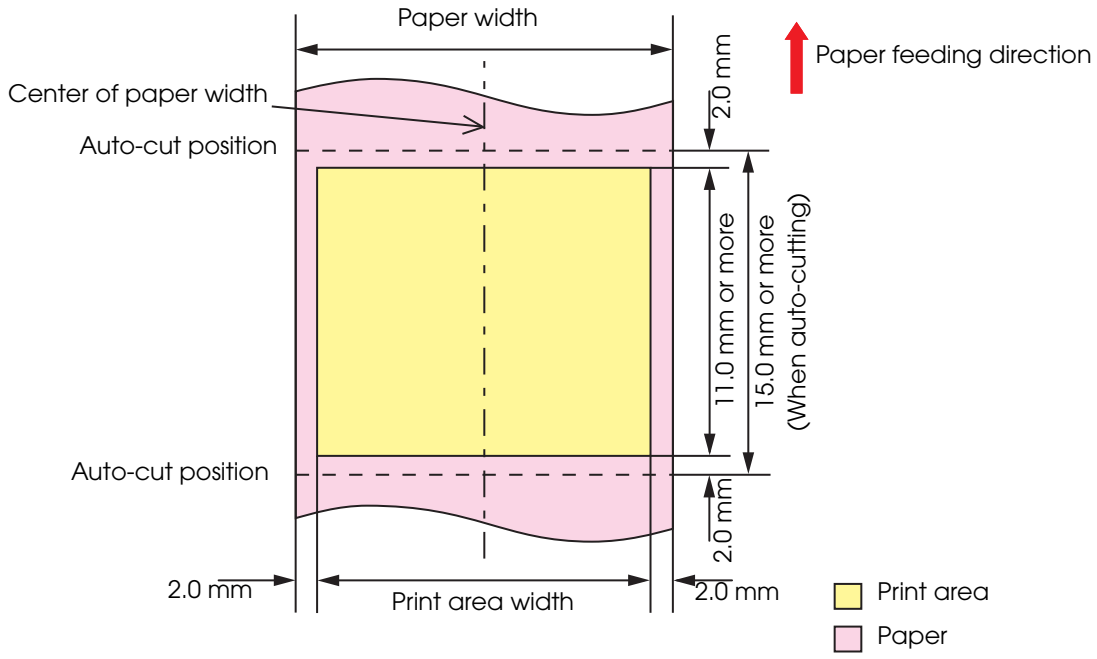


Paper type	Synthetic Media
Specified original paper	PDC Compucolor 8000 Series 7.5 mil Rectangular Band (Code: 8000-11-PDL)
Form	Roll paper
Backing paper width	28.6, 30 mm
Black mark width	13 mm or more
Black mark length	9 mm or more
Black mark centering position	8.5 ± 1 mm
Black mark interval	292.1 mm
Paper thickness	0.19 mm
Roll paper core	Outside diameter: 56.8 mm
External diameter	Maximum 101.6 mm
Winding direction	Printing face must be facing outside.
Hole, notch	Diameter: 2.5 mm or less

Print Area and Cutting Position

Receipt / Roll paper

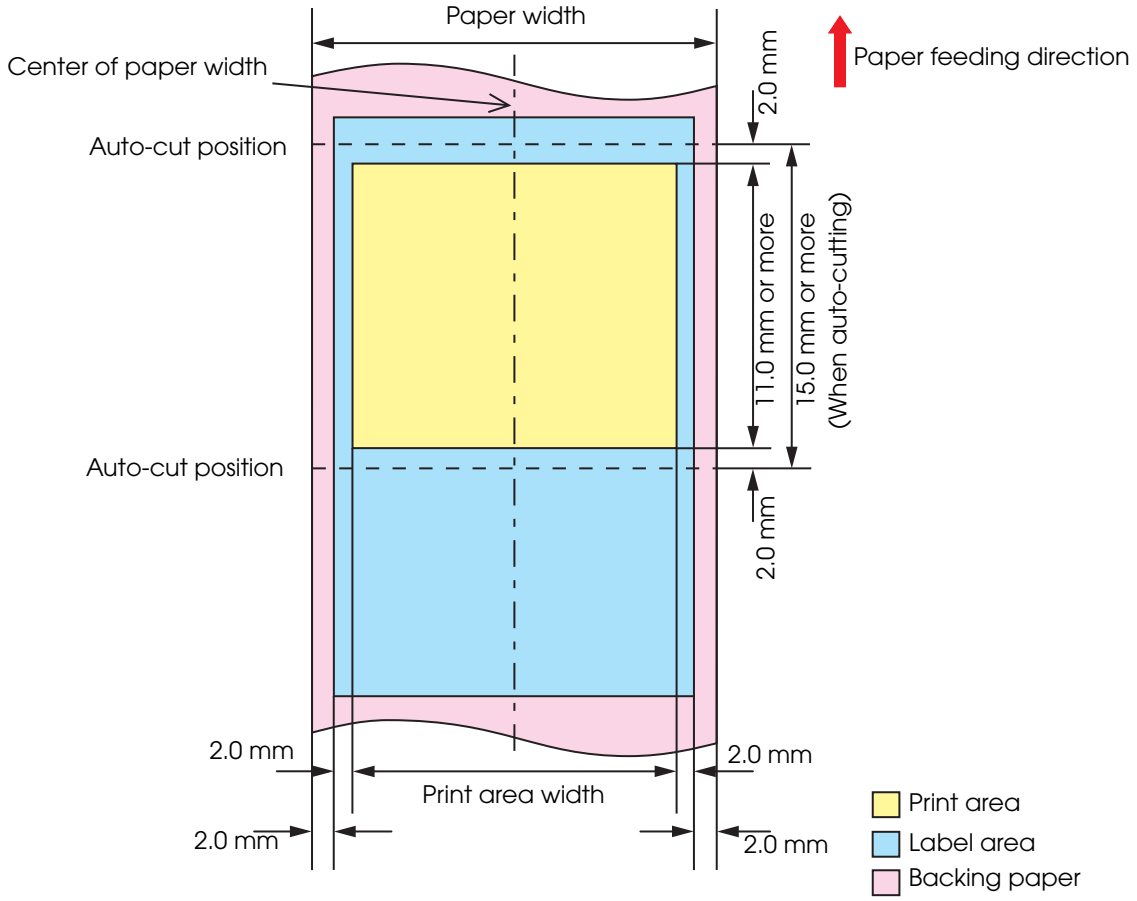
Top margin: 2.0 mm (typical value)
Left and right margin: 2.0 mm (typical value)
Bottom margin: 2.0 mm (typical value)



CAUTION When the roll paper option is set to “Banner Mode,” a top margin is set only on the first page of the print job, and not on the rest. A bottom margin is set on the last page of the print job.

Full-page Label / Roll paper

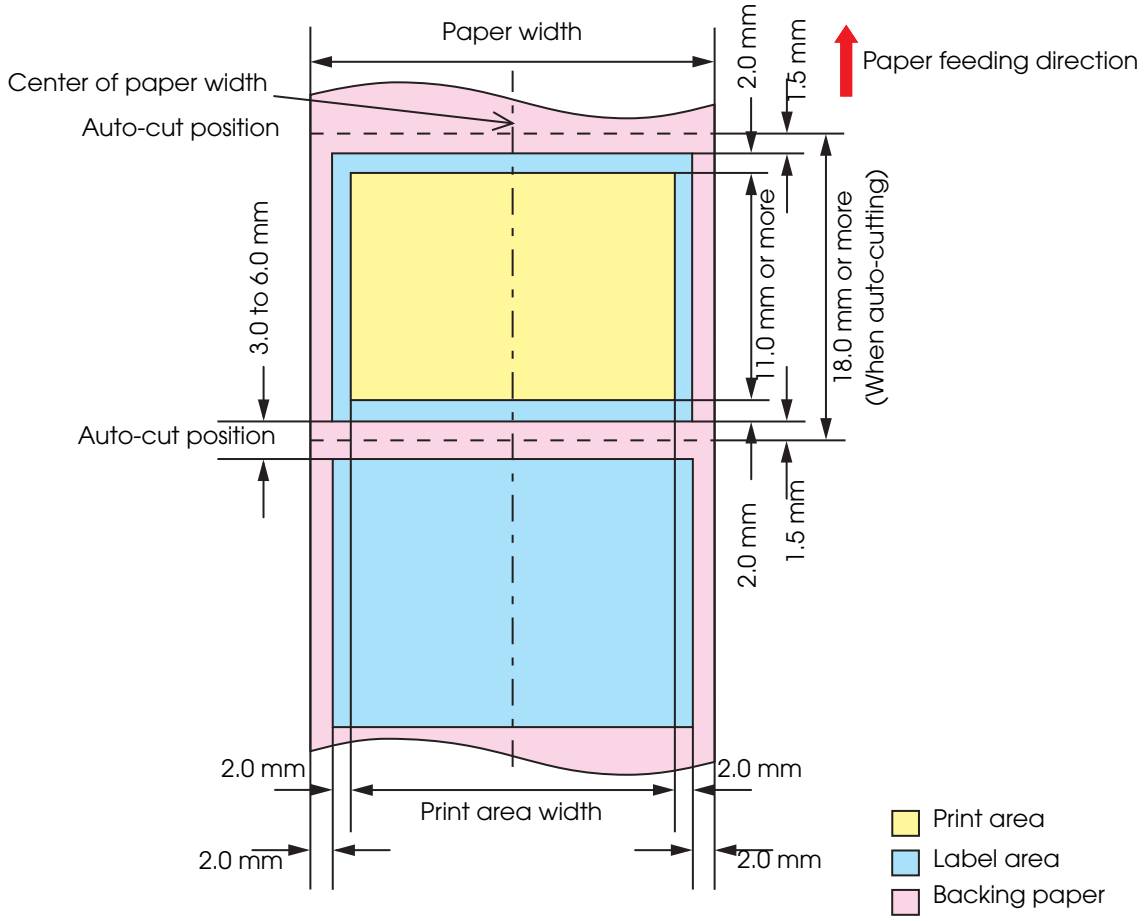
Top margin (inside the label): 2.0 mm (typical value)
Left and right margin (inside the label): 2.0 mm (typical value)
Bottom margin (inside the label): 2.0 mm (typical value)



CAUTION When the roll paper option is set to “Banner Mode,” a top margin is set only on the first page of the print job, and not on the rest. A bottom margin is set on the last page of the print job.

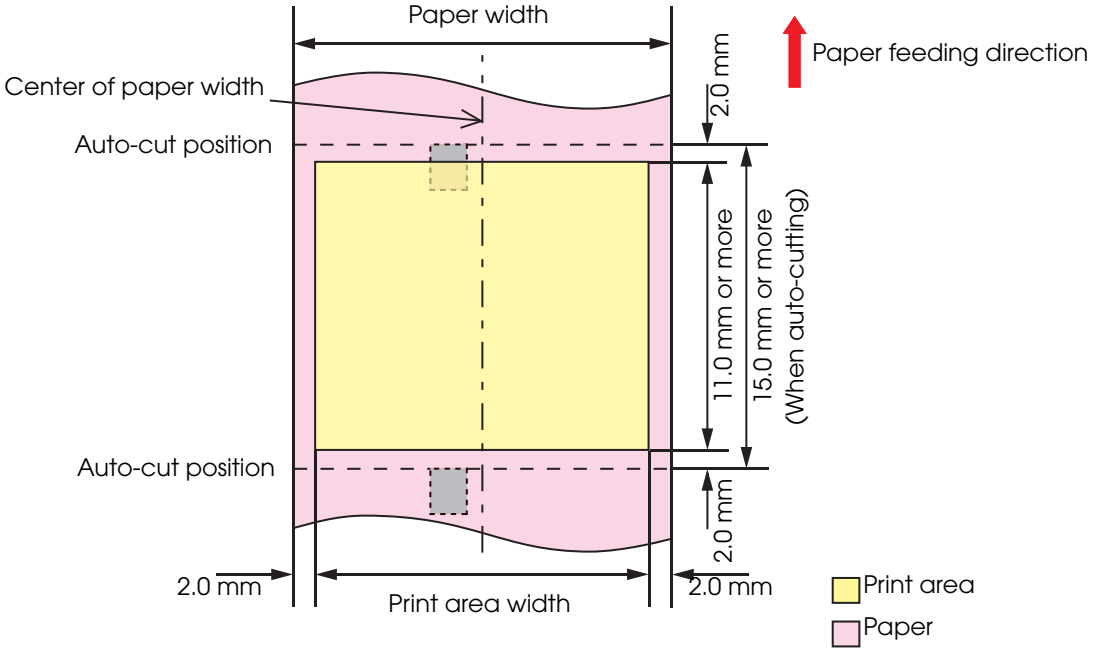
Die-cut Label / Roll paper

Top margin (inside the label): 2.0 mm (typical value)
Left and right margin (inside the label): 2.0 mm (typical value)
Bottom margin (inside the label): 2.0 mm (typical value)



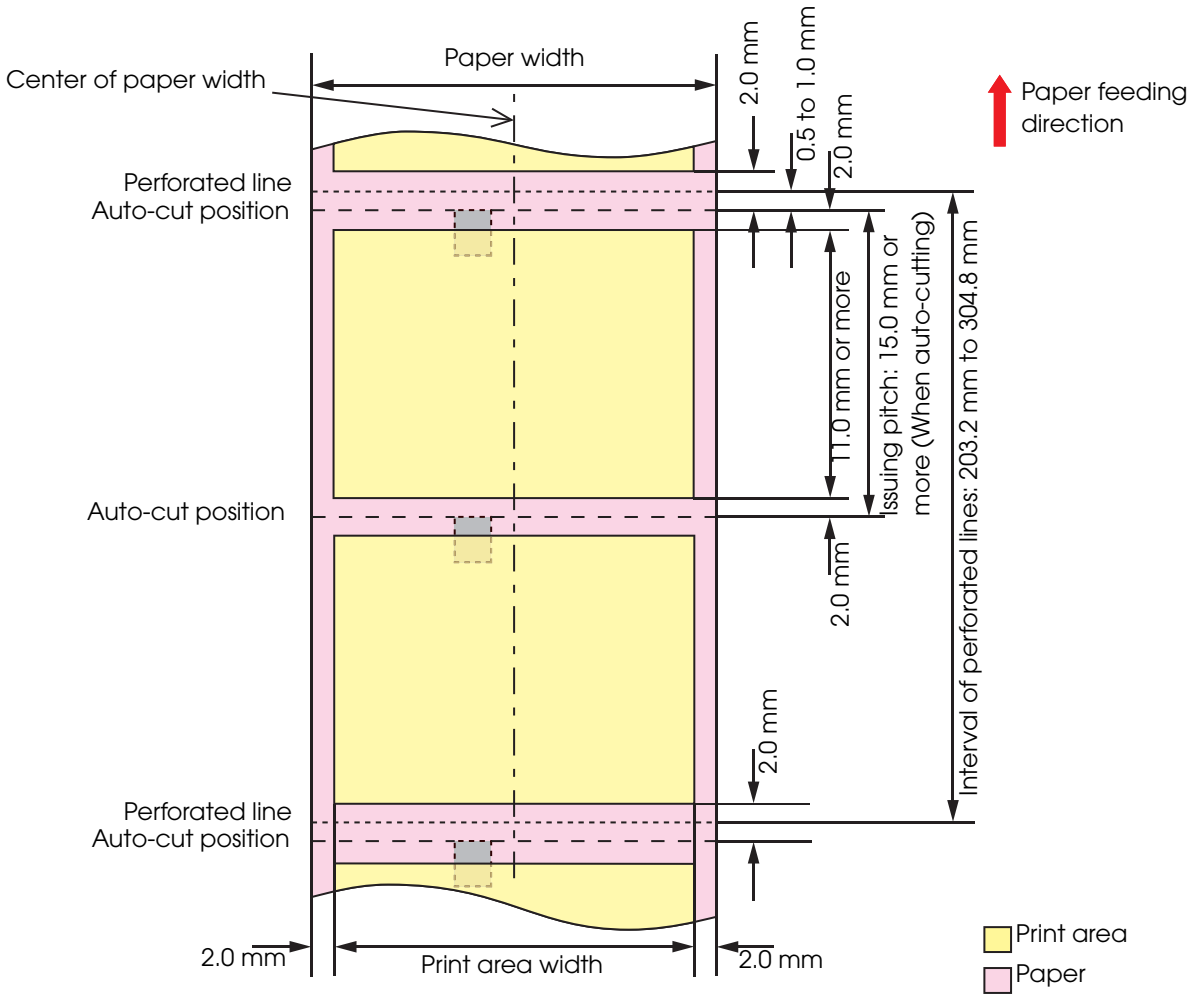
Black Mark Receipt / Roll paper

Top margin: 2.0 mm (typical value)
Left and right margin: 2.0 mm (typical value)
Bottom margin: 2.0 mm (typical value)



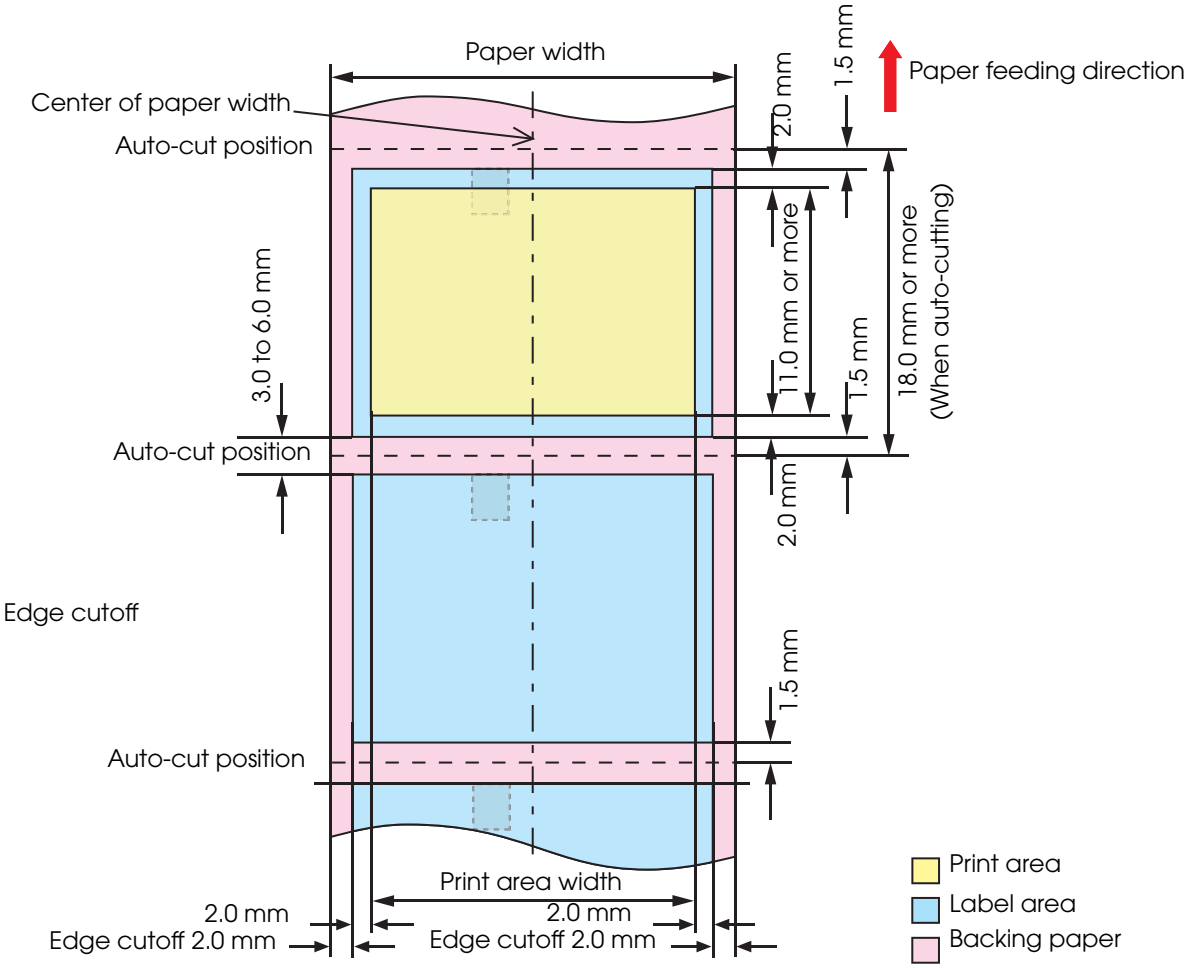
Black Mark Receipt / Fanfold paper

Top margin: 2.0 mm (typical value)
Left and right margin: 2.0 mm (typical value)
Bottom margin: 2.0 mm (typical value)



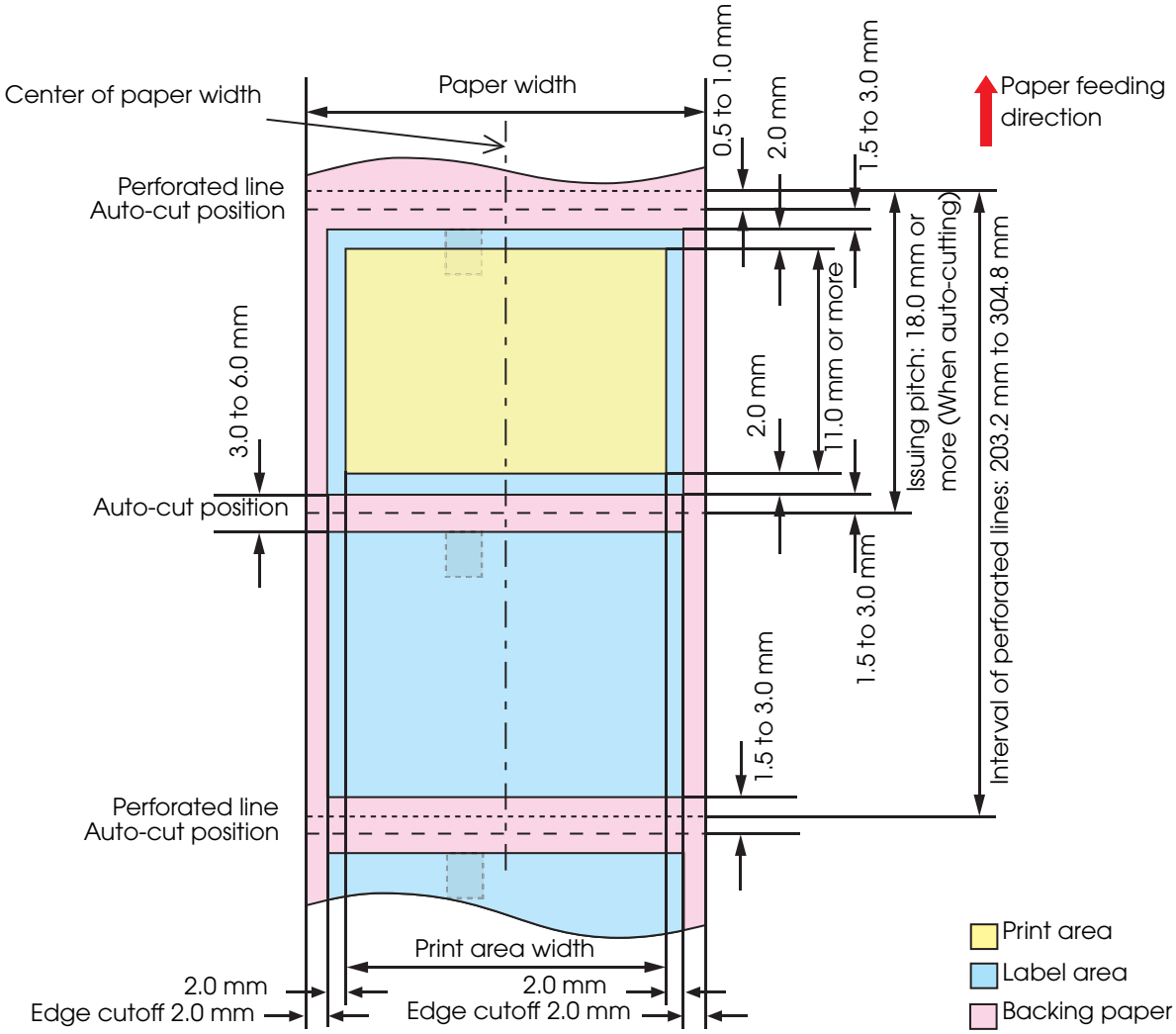
Black Mark Die-cut Label / Roll paper

Top margin (inside the label): 2.0 mm (typical value)
Left and right margin (inside the label): 2.0 mm (typical value)
Bottom margin (inside the label): 2.0 mm (typical value)



Black Mark Die-cut Label / Fanfold paper

Top margin (inside the label): 2.0 mm (typical value)
Left and right margin (inside the label): 2.0 mm (typical value)
Bottom margin (inside the label): 2.0 mm (typical value)

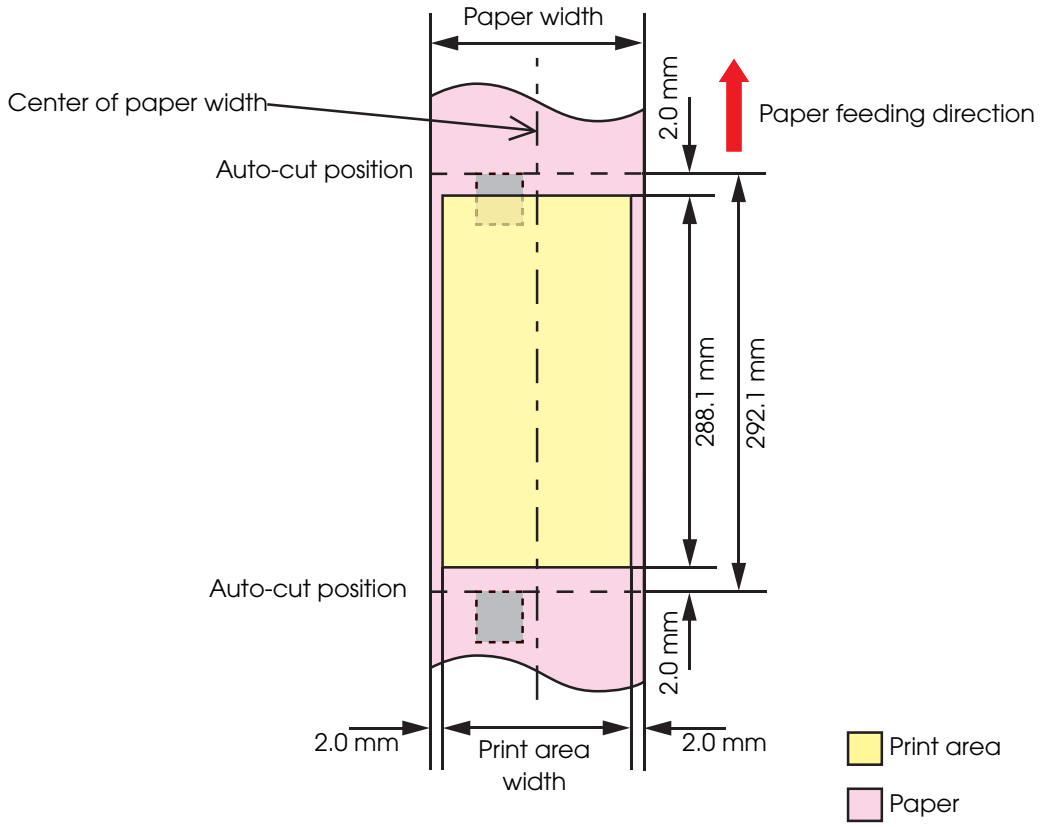


CAUTION

- Make sure to adjust perforated lines to an integral multiple of issuing pitch.
- The perforated line and print area overlap each other to destabilize printing or perforated line and the auto-cut position are misaligned to shorten the life of the autocutter if paper without black marks is used. Use paper with black marks on the back of the paper to adjust the paper position.

Wrist Band / Roll paper

Top margin: 2.0 mm (typical value)
Left and right margin: 2.0 mm (typical value)
Bottom margin: 2.0 mm (typical value)



Paper Ejection Tray

Black Mark Receipt	Paper type	Plain Media, Fine Media, PET Film
	Paper form	Fanfold paper
	Paper size	Width 76 to 105 mm × length 54 to 148 mm
	Paper thickness	0.119 to 0.151 mm
Black Mark Die-cut Label	Paper type	Plain Media, Fine Media
	Paper form	Fanfold paper
	Paper size	Width 76 to 105 mm × length 54 to 148 mm
	Paper thickness	0.145 to 0.161 mm

CAUTION

- The paper ejection tray cannot store multiple sheets of roll paper.
- The paper ejection tray may not hold the paper perfectly, depending on the condition of the paper or printing.

Ink Cartridge

Model number		SJIC15P
Type		3-color exclusive integrated ink cartridge
Ink color		Cyan, magenta, yellow
Ink type		Pigment ink
Ink life		6 months after loading to the printer, 2 years after manufacturing
Temperatures	Transport	-20 to 60°C (up to 5 days for 60°C)
	Storage	-20 to 40°C (up to a month for 40°C)
	Installation	-20 to 40°C (up to a month for 40°C)

Supplies

This section describes the supplies that can be used with this product. The information below is current as of December 2011.

Media

Paper that can be used with this product is listed in Epson's web site.

Ink Cartridge

The ink cartridge that can be used with this product is SJIC15P (3-color CMY integrated ink cartridge). It can be purchased from the store where you purchased the product.

We recommend that you use a genuine Epson ink cartridge.

To enable maximum printer performance, we recommend that you use a genuine Epson ink cartridge. If you use an ink cartridge other than a genuine Epson cartridge, it may adversely affect the printer hardware and print quality, and you may not be able to achieve maximum printer performance. A fee will be charged for repairing a damaged or failed product caused by using a non-genuine ink cartridge even if it is during the warranty period. We do not guarantee the quality and reliability of ink cartridges other than genuine Epson cartridges.

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